JPRS 75432

3 April 1980

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1994

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CEMA COUNTRIES' ENERGY-CONSERVATION MEASURES VIEWED

Budapest FIGYELO in Hungarian No 10, 5 Mar 80 p 8

[Article by Peter Tanczos: "Energy Conservation in the European CEMA Countries"]

[Text] The European CEMA countries have drafted a long-range energy-policy concept through the year 2000. The central task in this concept is the expansion of the output of primary sources of energy, and an increase in the share of coal, water power and nuclear energy within the energy budget. A new feature is that improvement of the effectiveness of energy consumption is on equal footing with the task of expanding output. Energy conservation is perhaps the most simple and least capital-intensive area within the long-range program. Therefore most countries adopted government resolutions to rationalize the management of energy.

In Bulgaria, the Council of Ministers issued last May a decree on energy conservation. Accordingly, gasoline prices have been raised, and norms have been set for the consumption of electric power and fuel oil. (Consumption in excess of the norms is more expensive.) Restrictions have been placed on the official use of motor vehicles and on their monthly fuel supply. A 70-percent cut in street lighting has been ordered. By 1986, all GAZ-3 and ZIL 130 trucks in the country will be converted into diesels. The proportion of oil-fueled power plants will be reduced by 5.6 percentage points this year. Bulgaria, jointly with Romania, is stepping up construction of large-scale hydroelectric complexes on the Danube. To save energy, the district-heating network is being expanded at a rapid rate, and from 1975 to 1980 the number of housing units connected to district heating will nearly treble, to 320,000.

In Czechoslovakia, on the basis of the government program to rationalize fuel and power consumption, plans have been prepared to reduce transport's energy demand. According to the plans, fuel consumption will barely rise under the next five-year plan. The heating systems now used exceed the international average in heat consumption. Within the framework of a state research task, new heating systems are being developed with which fuel consumption can be cut 30 percent. Heat losses from residential buildings are still high (35 percent), and this proportion will be improved by reducing the total area of windows and through better insulation. According to the energy-policy program, an important criterion in approving investment and modernization plans in the future will be the new structure's energy consumption.

In Poland, modification of the industrial structure has become an urgent task, with preference to industries and technologies that are less energy-intensive. (Industry accounts for 52 percent of the total consumption of fuel and power.)

To promote energy conservation, new prices have been introduced as of 1 January 1980 for electricity, heating fuel, and motor fuel, in order to curb and rationalize consumption. To keep economic losses from brownouts at a minium, power supply to industrial customers will be cut off in accordance with a specified priority list, on the basis of advance notice. To preserve motor fuel, preference in the future will be given to fuel-efficient cars and to trucks with a load capacity of 8 tons or less, and speed limits have also been introduced. More-efficient organization of the refueling of farm machinery serves to reduce empty runs. Buses and trucks will be converted into diesels. Heat losses in homes and public buildings will be reduced by installing automatic controls and better insulation, and by expanding district heating. The 11.6-percent power loss in transmission lines will be reduced.

In the GDR, the strict energy-conservation regulations cover the entire area of energy supply and consumption, with provisions for rationalizing the consumption of electricity and heat, and the use of heating fuels and motor fuels. Maximum temperature limits have been set for the heating and hot-water supply of homes, public buildings and workplaces. The enterprises that exceed the norms for energy consumption must pay a tenfold punitive rate. The speed limits set for buses and trucks will be enforced more strictly, because lately fuel consumption by vehicles has increased. During the winter peak period, one-fifth of the power plants' generating capacity will be used for lighting, and therefore the conditions of illumination at workplaces will be reviewed, and street lights and traffic lights on less-frequented thoroughfares will be disconnected. A central energy commission has been formed to oversee implementation of the measures and to prepare new proposals. Experiments are underway with new processes for producing energy, and also with new methods for reducing energy losses. For example, production has begun of solar elements that can be used to heat outdoor swimming pools, greenhouses and homes. Experts of a cable factory in Berlin are experimenting with cryogenic cables to reduce power transmission losses. In cooperation with Soviet experts, they will soon begin construction of an experimental transmission line.

In Romania, gasoline and oil prices have been raised several times, private use of official cars has been restricted, and also the weekend use of private cars. New fuel-consumption norms will be prepared and introduced in the near future.

The Soviet Union ranks first among the countries of the world in petroleum and coal production, and second in the production of natural gas and the generation of electricity. In spite of this, conservation of fuels, petroleum derivatives, electricity and heat is a primary task of economic policy. The conservation measures introduced up to now aim to improve the efficiency of energy consumption. Accordingly, the objectives of the energy programs include the production of modern generating, heating and energy-consuming installations, the application of advanced technological processes, the perfection of technological processes, the search for more-effective methods of petroleum production and coal mining, and expansion of the means of transporting fuels to greater distances.

Work is underway on coal liquefaction, and a special fuel is being tested that will permit significant savings in gasoline consumption, will have a higher octane rating and simultaneously increase engine life. Measures have been adopted to speed up completion and commissioning of energy-related investments, for example, gas pipelines, compressor stations, plants for the processing of natural gas, and power transmission lines. In certain regions of the country where this is feasible, increased use will be made of solar, wind and geothermal energy, and the production of equipment for this purpose will be accelerated.

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CEMA COOPERATION WITH THIRD WORLD COUNTRIES REVIEWED

East Berlin DEUTSCHE AUSSENPOLITIK in German Vol 25 No 2, Feb 80 signed to press 3 Jan 80 pp 47-60

[Article by Dr Paul Freiberg and Dr Juergen Nitz, Institute for International Politics and Economics, East Berlin: "Economic Cooperation Between CEMA States and Nationally Liberated Countries." Translations of the DEUTSCHE AUSSENPOLITIK articles cited in footnote 8 are published in JPRS as follows: article by Junghahn and Schmidt, in 73195, 11 Apr 79, No 1879 of this series, pp 34-44; article by Roehner in 73206, 11 Apr 79 EAST EUROPE REPORT: POLITICAL, SOCIOLOGICAL AND MILITARY AFFAIRS, No 1668, pp 13-25; and the article by Mardek and Wuensche, in 73840, 13 Jul 79, No 1698 of the East Europe political series, pp 20-35. A translation of the article by Klaus Willerding cited in footnote 9 is published in JPRS 74168, 12 Sep 79, No 1715 of the East Europe political series, pp 19-33; and a translation of the IPW-BERICHTE article by Freiberg, Nitz, and Scharschmidt cited in footnote 12 is published in JPRS 73336, 30 Apr 79, No 1889 of the East Europe economic series, pp 22-46]

[Text] Thanks to the progressive shift in the international balance of power in favor of the forces of socialism the nationally liberated countries are able now more effectively to guard their rights and interests, consolidate their national independence and devote more attention to the social, economic and cultural development of their peoples. Among the priority tasks in these countries at this time are the reinforcement of economic independence and speedier economic growth. Accordingly, economic relations are currently increasing in importance within the framework of total relations between socialist states and developing countries. In many of the developing countries the state sector of the economy is gaining strength, feudal landownership is on the way out, foreign firms are being nationalized, and the liberated states are increasingly inclined to exercise control of their own natural resources. This provides objectively favorable opportunities for the development of economic relations between socialist states and these countries.

It is the declared policy of the communist and workers parties and the governments of the socialist countries to support all anti-imperialist and progressive developments in the nationally liberated states, and this was frequently reiterated in the documents of the party congresses of these countries communist and workers parties. The Central Committee report to the Ninth SED Congress, for example, delivered by Erich Honecker, general secretary of the SED Central Committee, states:

"By expanding and strengthening political and economic relations we aid the struggle for economic independence and the accomplishment of the political, economic and social tasks confronting them of the liberated countries and those countries fighting for their liberation."[1]

The CEMA countries relations with the nationally liberated states are based on the general correspondence of interests of both groups of countries in their conflict with imperialism, in the struggle for peace and social progress. Their nature, goals, forms and methods represent a new quality of international relations.

The aid and support lent these countries by the CEMA states show that the division of labor and economic cooperation between the two groups of nations differ fundamentally from the capitalist division of labor and capitalist world economic relations, regardless of the Third World countries political orientation. We encounter here a new and special type of economic relations, a special type of the international division of labor,[2] which endeavors to establish lasting and mutually beneficial cooperation.

International economic relations between socialist states and developing countries are relations of states with different socioeconomic systems and unequal levels in the development of productive forces. The majority of developing countries currently still follows a capitalist approach, but nearly 20 Asian and African countries have already adopted a socialist orientation.

Economic cooperation with socialist countries began to assume greater significance in the 1950's. It encourages the economic liberation of the young nations, their industrialization, equal participation in world trade and the international division of labor as well as the right of these peoples without restriction to dispose of their own natural resources and choose their own approach to development. The strengthening of the national economy, the development of modern productive forces and the training of national cadres are important topical tasks which these countries must accomplish in the struggle with imperialism. To do so they need the aid and support of the socialist states.

The aims and basic interests of the socialist states as well as of the developing countries resulted in the emergence of this new type of economic relations between them. It is based on new standards and principles of international economic relations and serves as a model for the gradual transformation of international economic relations. This new type is characterized by respect for the sovereignty of states, noninterference in internal affairs, the recognition of the complete equality of the partners and the development of mutually beneficial relations.

Features of Economic Relations

The features of economic relations between socialist states and developing countries may be summarized as follows:[3]

1. The principles by which the socialist countries shape their relations with developing countries correspond to the latters objective needs. The developing countries efforts involved in the construction of their national economies, the development of the educational, social and health care system, thereby receive effective external aid designed to assist these countries in the exercise of their sovereign rights with regard to their national resources.

2. The economic and scientific-technological relations of the CEMA countries and the developing states are directed to industrialization, the development of farming, the diversification of the production structure and the expansion of the export base as organic elements of the national economy as well as to the development of other sectors of these countries economies. The CEMA countries achieve this by supplying plant, machines and other goods, granting loans, providing scientific-technological cooperation and purchasing traditional products of the respective countries as well as the output of new factories.

3. The plants built by the socialist states normally become the exclusive property of the developing countries and, in many cases, represent the material-technical base of the state sector which is greatly strengthened thereby. Thus the foundations of a long-term international division of labor are created, which are suited to this new type of relations.

4. Economic relations between the CEMA states and the developing countries evolve on the basis of international agreements of an increasingly long-term and comprehensive nature. This gives a solid footing to these relations, makes them more stable and provides favorable prerequisites for the better utilization of the existing opportunities for reciprocal economic relations. The steadily expanding trade relations correspond to both parties interests. The socialist states use suitable exports to pay for the purchase from these countries of goods important for their economies and the supply of their peoples. The developing countries obtain an opportunity not only to import machines, means of transportation, chemical products and other goods from the socialist states but also to increase their exports of semi-finished and finished goods.

5. The states of the socialist community aid the developing countries in many ways, and enable them better to carry on their anti-imperialist struggle for a change in their status in the world economy. That is done not only by the steady expansion of reciprocal relations but also by the disclosure of the reasons for their currently disadvantaged situation in the system of the capitalist international division of labor and by the struggle against discrimination inside and outside international organizations. The

socialist states support all those steps of the developing countries, which are designed by the use of the changed international balance of power to wrest from imperialism concessions regarding the improvement of their status in the capitalist world economy.

Growing and deepening economic and scientific-technological relations between the two groups of countries are in the immediate interest of the socialist states and, simultaneously, represent effective support for the developing countries, especially because they also facilitate advances in social issues. The development of economic relations with the developing countries beneficially involves the resolution of urgent needs and opportunities of these countries and the CEMA countries in economic development. At the same time these relations also affect the attitude of imperialist states to economic relations with the new liberated states. Opportunities for neocolonialist exploitation are narrowed, the imperialist states compelled to make concessions in the matter of loans, agree to a more advantageous technology transfer, and so on. The new principles practiced by the socialist states in their relations consequently have increasingly strong effects on the capitalist economic world system.

Types and Methods of Cooperation

Foreign trade represents the main type of economic relations between the CEMA countries and developing states. It increased 9.3-fold, from R1.7 bilion in 1960 to some R16 billion in 1977, and thus rose from 6.9 percent to about 10 percent of the total foreign trade turnover of the CEMA countries.[4]

From the regional aspect the past 10 years have not really seen any changes in the flow of goods. More than half of the CEMA countries goods turnover with this group of countries is transacted with Asian countries, about 35 percent with African countries (the turnover with that region is slowly rising), and 10-15 percent with Latin America.[5]

Machines and equipment account for about a third of the CEMA countries exports. In the mid-1970's the CEMA countries annual exports of machines and equipment to developing countries amounted to about R2 billion. As regards the CEMA countries imports from the developing countries, food and agricultural raw materials accounted for about half. In connection with the industrial development of the nationally liberated states structural changes have begun to emerge in recent years, and the share of mineral raw materials, fuels, semi-finished goods and finished products is increasing. In 1971-1977 the development of light industry in the liberated states, especially, resulted in an about 22 percent rise in the share of this main group of goods in the CEMA countries imports. In the case of the USSR, imports of finished products from developing countries already accounted for about a third of total imports by the mid-1970's.[6]

Still, there are important underused possibilities for the expansion of the reciprocal goods turnover. The socialist states could substantially broaden their export range for machine construction products, especially with regard to energy, electrical engineering, transport machines, equipment for the metallurgical industry and mining, electronics, the food industry, the textile and leather industries, cement factories, and so on. Currently the developing countries obtain a relatively modest volume of machines and equipment from the socialist countries (8 percent of the exports of all European CEMA countries, 16 percent of the USSR's exports). This does not by any means correspond to the CEMA countries status as producers of machine construction products. Exactly this sector offers the most promising outlook for expanding economic relations with this group of countries. However, that means that export production in the socialist states must be geared more specifically to the needs and conditions prevailing in the developing countries.[7] Concurrent with the structural shifts in these countries economies future imports of finished products of such industries as metallurgy, oil processing, petrochemicals, electrical engineering and industrial consumer goods will tend to rise.

More and more developing countries are persuaded of the advantages of cooperating with the CEMA states. Let us not forget that, as a consequence of their colonial past, the developing countries transact about 80 percent of their total trade with the former ruling countries and other capitalist states, that their division of labor is traditionally and largely involved with the reproduction process of the capitalist countries, that multinational monopolies still occupy positions of eminence and exert the corresponding influence. On the other hand the inevitabilities and tendencies inherent in the capitalist world economic systems are precisely that which deforms and obstructs economic development in the nationally liberated states. Nor should we disregard the fact that the economic circles of many developing countries tend even now to be insufficiently acquainted with the CEMA countries production potential and their capacity for cooperation. Also, political and administrative barriers persist in some countries, which at least impede ties with the socialist states.

CEMA countries and developing countries are now developing many types of cooperation, which feature a new quality and are based on new principles. The CEMA countries are guided by the main goal of political, economic and scientific-technological cooperation between the socialist states and the nationally liberated countries: It is to assist them to consolidate their political and economic independence, help in the struggle for the removal of all residues of the colonial and neocolonial system of oppression, for their equality and independence, coupled with the complete abolition of all foci of colonialism and neocolonialism as well as the gradual diminution of the exploitation of these countries by international monopolies.

When granting economic aid the socialist states are therefore guided by the following principles:

-- Aid is mainly concentrated on the productive sectors of the national economy; more than 70 percent of the resources are used in the sphere of production in order to create key industries such as energy supply, ferrous and nonferrous metallurgy, mining, machine construction, and so on; but also other, more traditional sectors, such as the production of textiles in Ethiopia, for example; the production and processing of national resources is expanded;

-- Aid is concentrated on the state sector, develops and strengthens it because projects carried out with the aid of socialist states become the national property of the developing countries concerned;

-- As a rule the socialist countries grant the young nations long-term loans which they may largely repay by the supply of export goods originating with their national economies. By the end of 1978 the CEMA countries had paid out about R15 billion in loans to developing countries on preferential terms; about 75 percent of this amount were employed for the development of industry in these countries, including energy production.

Such basic outlines of economic cooperation correspond to the concept maintained in many nationally liberated states--primarily those with a socialist orientation--that the development of the state sector, the nationalization of foreign capital, the reduction of the influence of international monopolies and fundamental changes in farming represent crucial prerequisites for overcoming economic backwardness and raising the prosperity of their peoples. All actions of the socialist states agree with the interests of the developing countries and are coordinated with the plans and wishes of the governments of these states.

New Types of Cooperation

New types of cooperation are increasingly coming to the fore, such as the delivery and erection of complete factories as well as of plant and equipment, various methods of industrial cooperation, the realization of compensation projects, common enterprises, cooperation in transportation, scientific-technological cooperation, the training of national cadres, and so on; substantial experiences are already available in regard to some of these types.

So far the CEMA countries have helped to set up approximately 4,400 industrial projects and other economic projects in the nationally liberated states of Asia, Africa and in Latin America; many of them are already operational. The main partners here are developing countries with a socialist orientation, though others are involved also, such as India, Iran and Pakistan with all of which the USSR especially maintains intimate relations in its capacity as a neighboring state. The foregoing are the beneficiaries of a substantial volume of economic and technical aid. Currently the GDR is linked to more than 50 developing countries by bilateral agreements, including the program of cooperation with the People's Republic of Mozambique and the SAR, which is to run through 1990; agreements on scientific-technological cooperation were concluded with 25 countries.[8]

Soviet aid to India resulted in the construction and supply of complete factories and plants such as the Bhilai iron and steelworks (4 million tons of steel annual capacity), the Bokaro steelworks (its production capacity of 1.7 million tons of steel is now being raised to 4 million tons). Factories built with USSR aid supply India with 35 percent of its steel needs, 70 percent of oil requirements, 20 percent of electricity; they also produce important heavy machines. With GDR aid Algeria is constructing the industrial complex of Berrouaghia; this includes a fittings factory which began operations in 1977, a pump factory and a steel foundry. This has made the Algerian economy largely independent of imports of industrial fittings for the water supply industry and, in part, the oil industry which represents an important sector of Algeria's economy. If we further consider that the GDR general contractor for the complex trained about 350 skilled workers and 180 college and technical school cadres, we may gauge the importance of this project for the development of Algerian productive forces. The GDR supplied complete textile factories to Tanzania, Ethiopia and Mozambique, enabling these countries to process domestic cotton.[9]

The industrial complex built in Algeria serves to show that the CEMA countries are beginning not only to construct single major enterprises but large regional industrial complexes on the basis of modern technology and in coordination with the economic development plans of these countries. Another example is the industrial complex built in Ranchi (India) by the USSR and the CSSR; this includes efficient factories for the production of machine tools, foundries and departments for the production of forgings. Aided by such industrial complexes it is possible substantially to intensify national efforts at industrialization. India serves as an example of the results possible of achievement: The factories built with the CEMA countries aid now turn out 80 percent of the machine construction products and 60 percent of electrical equipment turned out in the state sector of the country.

Consequent upon the construction of about 350 factories and other projects in Iraq, that country developed several new industries such as an electrical and pharmaceutical industry as well as mining. In 1978 more than 20 percent of Iraqi foreign trade were transacted with the CEMA countries.

In the course of development are types of industrial cooperation between the CEMA countries and nationally liberated states. Here domestic factories turn out certain parts or engine sets or appliances on the basis of technological documentation and know-how made available by the CEMA countries. This type of cooperation is relatively recent but bound to become an important factor in economic relations in the foreseeable future. The People's Republic of Poland, for example, developed industrial cooperation with Algeria in shipbuilding (fishing cutters), with Egypt regarding the assembly of passenger cars and trucks, television sets and the construction of excavators, with Brazil with respect to coal mining, with Colombia, Thailand and Indonesia in the production of automobiles, with India in the construction of tractors. These examples suffice to demonstrate the potential range of cooperation. In general provision has been made that the manufacture of the components and subassemblies supplied by Poland will gradually be assumed by the domestic industry. Here we see the qualitatively new nature of such relations which enter directly into the sphere of production. Often this type of cooperation goes even further and is coupled also with the export of services and technical knowledge. The socialist states thus aid the developing countries to overcome the great difficulties still persisting there due to the lack of technical personnel.

The development of types of industrial cooperation with the socialist states helps raise the exports of the developing countries products with the corresponding degree of processing to the receptive and stable markets of the CEMA countries and facilitates the repayment of the developing countries borrowing. The socialist states, for their part, are interested in the development of cooperation relations, because they are thereby enabled to obtain necessary goods on advantageous terms, raise their exports of machines, equipment and modern technology, more rationally organize the structure and better utilize production capacities.

To the extent that the national industries grow and expand, an increasingly large proportion of subassemblies and parts turned out on a cooperative basis will be gradually supplied by domestic factories which, in due course, will also begin to export them. Hand in hand with the construction and development of modern industries in the developing countries will go a rise in the prerequisites for deepening cooperation within the industries and developing the reciprocal exchange of subassemblies and single parts.

In this connection the shift of some productions to developing countries will in future gain in importance--in order to bring manufacture closer to raw material sources, as in the case of the textile industry going to cotton growing areas.

Compensation agreements also are emerging as the most recent type of reciprocal relations. The USSR and India, for example, jointly constructed an industrial complex at India's eastern coast, which is designed to produce about 600,000 tons of aluminum oxide per annum. The USSR made available plant, equipment and even building materials; in return it is obtaining deliveries from the production of the industrial complex. This type of cooperation offers the developing countries stable markets for their traditional as well as their new products. The socialist countries consider this type of cooperation an opportunity for expanding exports of equipment and, at the same time, securing stable and long-term supplies of raw materials and fuels, semi-finished products and finished products.

Together with the expansion of cooperation between the socialist states and the developing countries we are seeing a trend to advance to cooperation within entire industries. This offers excellent prospects in such technologically crucial industries as machine construction, metal processing and chemicals.

Cooperation is also just beginning in the establishment of mixed enterprises; this relates to the sector of circulation as well as that of production. At the same time the interests of the developing countries are strictly observed. Mixed companies exist when and where the young states themselves think it desirable. In contrast to the international corporations of the imperialist states the CEMA countries insist that the controlling stock is held by the developing country where the mixed enterprise with the socialist countries participation is detailed, and that the developing country makes all management decisions. The socialist states are concerned to find a formula suitable to pass on the experiences of their economic and technical development and establish close, mutually beneficial economic relations on a long-term basis. In their cooperation they representatives of the socialist countries are guided by the concept that the mixed industrial enterprises represent a factor in the strengthening of the national economy and its state sector, and are an efficient tool for further developing economic relations between the two groups of countries.[10]

Cooperation in transportation is increasingly on the advance. The GDR, for example, equipped 40 km of rail tracks in Syria with signalling and safety equipment; in Angola it helped equip port facilities, and in other African countries harbor cranes from the GDR are speeding up the transshipment of goods for these countries import and export trade.

Another type of aid is scientific-technological cooperation. This is particularly suitable for helping the developing countries efforts to build up a domestic economy, especially relating to the construction of new industrial complexes, their interaction with existing enterprises, the transmission of production experiences or technical processes, know-how and patents as well as issues of production management and planning. This cooperation is all the more important for the developing countries, because the imperialist states are not demonstrating any great readiness to extensive cooperation in these fields; on the contrary they inflict additional damage on the developing countries by recruiting their trained cadres. This sphere, therefore, has become a key in the cooperation between socialist and developing countries, reflecting to a very considerable extent the socialist principles of aid. It is very much involved in the evolution of the new nature of these relations.

In this context scientific-technological aid by specialists and advisers, but most of all the training of national cadres and the construction of training centers are constantly gaining in importance. The nationally liberated states are thereby enabled to overcome one of the most significant elements of their backwardness--the extreme lack of trained cadres--, more effectively to deploy their own forces and thereby strengthen their independence. From this aspect aid is particularly important for the socialist oriented developing countries; beyond the scientific-technological sphere it is essential also for social, economy managing and organizational approaches. So far more than 400,000 workers, technicians and specialists from developing countries have been trained in the CEMA countries. Currently 40,000 young people from Asia, Africa and Latin America are enrolled in colleges and universities of the CEMA countries. At the same time steadily more specialists from the CEMA countries cooperate in the construction of projects and the training of national cadres in the developing countries.

Colleges, technical schools and polytechnical institutes were established with socialist aid in many of these countries, for example in Afghanistan, Iran, Ethiopia, Guinea, Algeria, India, Burma, Egypt and Iraq (a national institute for oil, natural gas and chemistry in Algeria, a polytechnical institute in Bombay, a school of mining in Iraq, a school of construction in Tehran). Most of these facilities were presented as gifts to these countries. Many of the cadres trained there are already involved in the training of more national cadres in other nationally liberated countries. Incidentially, it is a matter of course that all national cadres trained in the CEMA countries return home once they have graduated. The CEMA countries do not practice brain drain.[11]

In the past the CEMA countries established a total of 180 teaching facilities in the nationally liberated states; they are able annually to train 60,000-80,000 specialists in various fields. A common scholarship fund was set up within the scope of CEMA; at the present time its resources are financing the instruction of 2,350 students from developing countries.

A relatively new type of cooperation with the developing countries is triangular cooperation between socialist states, capitalist industrial and developing countries. The emphasis here is on the production of electric energy, machine construction, the iron and steel industry, oil production and processing as well as farming.[12] Substantial useful effects of triangular cooperation are arising, for example, in the handling of such major projects as are frequently launched in developing countries relative to raw material development and processing or the construction of complete industrial plants. As ultimately all types of triangular cooperation involve the supply of goods, the beneficial effects are not confined to the foreign trade of the participating countries; the developing countries are at the same time enabled to improve their status in the international division of labor, reduce the adverse effects of their subordinated role in the system of the capitalist international division of labor and, with the help of the socialist states, improve their positions in the struggle for economic independence from imperialism as well as push back the adverse influences of international monopolies. The USSR, for example, is involved in trilateral cooperation with Britain respecting the construction of an energy complex in Brazil; in the United Republic of Cameroon the GDR and an Austrian firm have joined to build a cellulose plant, and so on.

Their industrial development and the unselfish aid of the socialist states have already enabled some nationally liberated states (such as India) actively to get involved in third markets and proffer economic and scientific-technological aid to other countries. This is often done in collaboration with CEMA countries. The CSSR, for example, concluded agreements with India and Iraq on the joint construction of projects in third countries. Similar types of cooperation are being initiated also between the USSR and India.

In the meantime multilateral types of cooperation are also emerging. Examples are CEMA agreements on cooperation with Iraq and Mexico. The multilateral aspect is also showing up more clearly in the implementation of projects on the territory of developing countries. Altogether, opportunities for cooperation with the developing countries are multiplying along with the CEMA countries progressive economic integration; this had been a key task listed in the CEMA Complex Program. Interested countries, though not CEMA members, may participate fully or in part in the implementation of integration within CEMA. The long-range target programs for the CEMA countries cooperation stake out the strategy for the joint settlement of key economic issues for the period through 1990/2000 and allow for long-term cooperation with the nationally liberated states, especially in the sectors energy, metallurgy and chemicals. In future agreements with CEMA will represent a growing trend toward the multilateralization of relations.

In recent years the socialist states aid for the nationally liberated countries has assumed qualitatively new features not only as to types but also basic principles. In 1962 the CEMA countries granted economic and technical aid to 34 developing countries; the present figure is 86. In 1978 alone more than 240 agreements were concluded between CEMA and developing countries. Cooperation is increasingly long-range: Long-term government agreements on the exchange of goods and economic cooperations have terms of 5, 10 and even 15 years. The USSR, for instance, signed such long-range agreements with India, Afghanistan, Syria, Iraq, Iran and sundry other countries, and these also affect various sectors. In early December 1978 the USSR and India agreed a program which deals with cooperation in the economy, science, technology and trade for the next 10-15 years; the Indian press agency PTI described this as a "new dimension in the relations of the two countries."[13]

Such long-range agreements give new dimensions to the foreign trade relations of the CEMA countries with the nationally liberated states, because they are distinguished by a comprehensive approach linking exports and imports and, at the same time, involve technological relations, cadre training, counseling and advice to users. The latter is of particular importance for the export of complete plants, which is bound to grow in the future.

At the same time these agreements provide a special mechanism for their practical implementation. Normally this consists of government level interstate commissions for economic and scientific-technological cooperation, and these in turn set up committees and subcommittees on specific issues. The growing dimension, the length of time involved and the complexity of cooperation require a special interstate management mechanism, all the more as this cooperation is designed for the long term and intended to help the achievement of tasks in the national economic plans of the partner countries. Herefrom arises also the direct and growing influence of governments on the management and coordination of interstate relations.

Further Development

World economic trends as well as the processes within the economies of the socialist states and the national economies of the developing countries offer favorable conditions for a substantial expansion of economic cooperation. The economic and technical cooperation of the two groups of countries in the establishment of modern industries, the speed-up of economic growth rates, the improvement of productivity and the tackling of structural economic changes in the nationally liberated states is at one and the same time a contribution to the gradual evolution of a new international economic system. The steadily progressing division of labor between socialist and developing countries on the basis of equality and mutual benefit is an effective remedy against the imperialist system of exploitation in international economic relations.[14]

As they stated at the Fifth UNCTAD Conference, the CEMA countries consider it an important and urgent task to advance the progressive transformation of international economic relations on a just and democratic basis. World economic relations are still largely dominated by colonial structures, discrimination, nonequality, unilateral profit and exploitation by international corporations and imperialist powers, and this obstructs in particular national progress in the developing countries. Reactionary forces covertly or overtly sabotage the implementation of profound social and economic changes in the developing countries. All this reinforces the justified demands by the nationally liberated countries for the abolition of these conditions by structural shifts in the world economy and world trade.

In their joint statement at the Fourth UNCTAD Conference in Nairobi the socialist countries assisted the legitimate efforts of the developing countries for securing full sovereignty over their resources and economic operations, developing their economies for the national purpose and freeing themselves from neocolonialist exploitation by, among others, obtaining control of the operations of foreign capital and, especially, the multinational corporations. At the same time "the socialist countries with total justification reject any conceptions which, in the matter of the responsibility for the backwardness and current problems of the developing countries, lump together the socialist countries and imperialist states. Such conceptions are ultimately inspired by precisely those forces which are endeavoring to drive a wedge between the socialist countries and the developing states and erect obstacles on the way to joint operations."[15]

The joint declaration by the socialist states at the 31st United Nations General Assembly also noted that attempts "cannot be approved...which aim to distort reality and, without any justification, rigidly classify the world of socialism within the division of countries into rich and poor nations, thereby putting on an equal footing the socialist states with the imperialist powers relative to the issue of the historic responsibility for the economic backwardness of the developing countries, the consequences of the colonial yoke and the persisting neocolonialist exploitation of these countries.

There is not, nor can there by, any justification whatever for holding the socialist countries responsible for the consequences of colonialism, the baleful effects arising from the persisting inequality in economic relations on the developing countries, or for the heavy burdens resulting from the crisis of the capitalist economy."[16]

The socialist states continue to extend multilateral aid to the developing countries by those means which are consonant with the socialist social system and the interests of the developing countries. The principles guiding the socialist states in their policy toward the nationally liberated nations in the economic and scientific-technological field reveal new opportunities for the expansion of their all-round cooperation with these states and for the achievement of the justified demands of the nationally liberated states for the fundamental democratic transformation of the international economic system.

FOOTNOTES

1. "Bericht des ZK der SED an den IX. Parteitag der SED" [SED Central Committee Report to the Ninth SED Congress], Berlin 1976, p 20.

2. See O. Bogomolov, "CEMA States and Developing Countries," MEZHDUNARODNAYA ZHIZH, Moscow 1979, No 6, p 25.

3. These features are noted in a book (now in preparation) by G. Brendel/E. Faude/C. Scharschmidt/S. Wenger, "Internationale Oekonomische Beziehungen" [International Economic Relations].

4. See O. Bogomolov, as before, p 28.

5. Ibid, p 29.

6. See N.P. Shmelyov, "Socialism and International Economic Relations," Moscow 1979, p 178.

7. Ibid, pp 180, 182, 197.

8. See NEUES DEUTSCHLAND, Berlin, 7 September 1979, p 6, "On Economic Relations Between the GDR and Developing Countries,"; for greater detail see M. Junghahn/U. Schmidt, "GDR--Economic Partner of the Developing Countries," DEUTSCHE AUSSENPOLITIK, Berlin 1979, No 1, pp 44ff; E. Roehner, "GDR--Arab States: Common Interests and Goals," DEUTSCHE AUSSENPOLITIK, Berlin 1979, No 1, pp 14 ff; H. Mardek/R. Wuensche, "GDR Relations With the National Liberation Movements and the States of Asia, Africa and Latin America," DEUTSCHE AUSSENPOLITIK, Berlin 1979, No 1, pp 54 ff.

9. See K. Willerding, "On the GDR's African Policy," DEUTSCHE AUSSENPOLITIK, Berlin 1979, No 8, pp 5 ff.

10. See O. Bogomolov, as before, p 36.

11. See K. Willerding, as before.

12. For more details see P. Freiberg/J. Nitz/G. Scharschmidt, "On the Nature of Trilateral Economic Cooperation," IPW-BERICHTE, Berlin 1979, No 2, pp 17 ff.

13. See NEUES DEUTSCHLAND, Berlin, 2/3 December 1978.

14. See speech by H. Soelle, GDR Minister for Foreign Trade, at the UNCTAD Plenary Session (14 May 1979), DDR-AUSSENWIRTSCHAFT, Berlin 1979,No 31, supplement; also W. Sproete, "On the United Nations Debate on the Concept of International Development Strategy for the 1980's," DEUTSCHE AUSSENPOLITIK, special issue on United Nations Balance Sheet 1978/1979, Berlin 1979, pp 45 ff.

15. DEUTSCHE AUSSENPOLITIK, as before, No 8/1976, pp 1249 ff.

16. DEUTSCHE AUSSENWIRTSCHAFT, Berlin 1977, No 48, supplement, p 2.

11698
CSO: 2300

HUNGARIAN-USSR ECONOMIC AGREEMENTS SIGNED

Budapest NEPSZABADSAG in Hungarian 12 Mar 80 pp 1, 3

[Text] Istvan Huszar, deputy chairman of the Council of Ministers and chairman of the National Planning Office, and Nikolay Baybakov, deputy chairman of the Council of Ministers USSR and chairman of GOSPLAN, signed in the National Assembly building a long-term program for the development of production specialization and coproduction between the Hungarian People's Republic and the Soviet Union.

The program was worked out on the basis of the agreement that Janos Kadar and Leonid Brezhnev reached at their meeting in the Crimea in 1977. Its main socioeconomic objective is to contribute toward developing the two countries' economies, and toward the expansion and intensification of economic and scientific-technical cooperation between the two countries. Simultaneously the program provides a good foundation for the elaboration of the five-year plans through 1990.

For the period through 1990, the competent ministers signed also several sectoral subprograms for the development of production specialization and coproduction. Istvan Soltesz, minister of metallurgy and machine industry, and Viktor Krotov, minister of power machine-building, signed a long-term sectoral subprogram for production specialization and coproduction in power-industry equipment. Istvan Soltesz and Mikhail Yegorov, minister of shipbuilding, signed a long-term sectoral subprogram for production specialization and coproduction in shipbuilding. Furthermore, Pal Simon, minister of heavy industry, and Leonid Kostandov, minister of chemical industry, signed a long-term sectoral subprogram for production specialization and coproduction in the chemical industry.

Pal Simon and Leonid Kostandov also signed two protocols. One extends through 1981-1985 the agreement that the two countries' competent ministries concluded in 1975 for production specialization and coproduction in chemicals. The other broadens and extends the intergovernmental agreement concluded in 1970 for cooperation in the production and mutual supply of olefins and their derivatives. Istvan Soltesz and Mikhail Yegorov signed an agreement extending through 1990 the agreement for production specialization and coproduction in shipbuilding.

Gyorgy Lazar, chairman of the Council of Ministers, Ferenc Havasi, secretary of the MSZMP Central Committee, Jozsef Marjai and Gyula Szeker, deputy chairmen of the Council of Ministers, Peter Veress, minister of foreign trade, and Vladimir Pavlov, the Soviet ambassador in Budapest, were present at the signing ceremonies. When all the documents were signed, Istvan Huszar and Nikolay Baybakov spoke highly of the willingness to cooperate that is reflected also in the documents, of the results of firm Hungarian-Soviet relations, and of their future prospects.

Istvan Huszar emphasized, among other things, that the close friendship between the two nations has been of very great significance in the work of reconstruction following our country's liberation, as well as in its further development. The effectiveness of our cooperation is clearly reflected also in the statistics: our commodity turnover will exceed 5.0 billion rubles this year, and the over 50 intergovernmental and interministerial agreements that are in force are aiding the development of all important branches of the national economy. The documents just signed also reflect that in our progress we are continuing to rely on a solid foundation.

Nikolay Baybakov praised the thorough and circumspect work of the Hungarian-Soviet Intergovernmental Commission, and of the planning organs and ministries, that paved the way for the programs and agreements just signed. He emphasized, among other things, that both the experience with cooperation over several decades and the work on preparing the further intensification of cooperation indicate both sides' desire to make their cooperation even closer. Particularly significant are the long-term programs that create good harmony in the most important areas of the economy, for its further development, for an effective division of labor, and for the further unfolding of socialist economic integration. In conclusion he voiced his conviction that relations between the two countries would continue to develop in a balanced manner, and that cooperation would continue to expand.

On the basis of the signed protocol to extend the olefin agreement, from 1 January 1986 through the end of 1999 the Chlorovinyl Association in Kalush will supply the Tisza Chemical Combine with 60,000 tons of ethylene a year. The Soviet chemical industry has undertaken to supply also other chemicals, primarily in exchange for polyolefins. The olefin agreement is a good example of specialization within the two countries' chemical industries. On the basis of the agreement it was possible to build in the early 1970s a large-scale olefin plant in Leninvaros, which supplies the requirements of several Hungarian chemical combines and Soviet users. Under the agreement, the Soviet partner has undertaken to build the next olefin plant by the mid-1980s.

Hungarian-Soviet cooperation will expand during the next ten years in shipbuilding as well as in the production of equipment for the power industry. The two sectoral subprograms spell out the details. Accordingly, Hungary will specialize in building various types of push tugs and floating cranes. A new feature of cooperation is that the Soviet shipbuilding industry will increase its deliveries of parts and subassemblies to the Hungarian shipbuilding industry, and emphasis will be placed also on the joint designing of ships. Production of a new product, a 140-ton floating crane, has also been planned; the prototype will be built by the end of the next five-year period. The shipbuilding industries of the two countries will cooperate also on continuing the Hungarian shipbuilding industry's reconstruction. The subprogram for power-industry equipment was worked out to better coordinate production. Multilateral agreements have already been concluded within CEMA for the specialized production and joint delivery of certain main units, turbines, auxiliary equipment, boilers and water-treatment units. Now also bilateral relations are defined more specifically, with special attention to the construction of nuclear power plants.

Gyorgy Lazar, member of the MSZMP Politburo and chairman of the Council of Ministers, received on Tuesday the Soviet delegation headed by Nikolay Baybakov. Istvan Huszar, Ferenc Havasi and Vladimir Pavlov also attended the talks held in a cordial atmosphere.

Yesterday before noon, Nikolay Baybakov visited the Automation Works of MMG [Measuring Instruments Factory] on Szepvolgyi Road. He left Hungary yesterday. Istvan Huszar and Ambassador Pavlov were at Ferihegy Airport to see him off.

1014
CSO: 2500

BRIEFS

YUGOSLAV-HUNGARIAN TRADE--In 1979 the volume of trade between Yugoslavia and Hungary amounted to $412.2 million, with our country delivering goods worth $174 million and Hungary, $238.2 million worth of goods. Our exports represent 75 percent of the volume planned in the commodity lists, while the Hungarian exports are 11.3 percent more than that planned. Nevertheless, last year's trade is judged a success because considerable progress was made toward balancing deliveries. In 1978 Yugoslav exports covered only 41.4 percent of our imports from Hungary, while in 1979 this percentage rose to 73 percent. The trade deficit amounted to $64.2 million but this is a marked reduction compared to 1978 when it was $171.3 million. If one takes into consideration services and credit arrangements, the payments deficit on the Yugoslav side amounts to only about $20 million. In 1980 the volume of trade based on the commodity lists should amount to $671 million. This includes goods deliveries amounting to $526 million, while invisible earnings will account for the remainder. Yugoslav exports will amount to $264.7 million, and Hungarian exports, to $261.4 million. The value of Yugoslav services would be $80 million and that of Hungarian services, $65 million. The differences in trade structure compared to 1979 and 1978 should contribute toward achieving a balance in deliveries for both countries. According to recent discussions in Budapest concerning economic cooperation for the next 5-year period, the volume of trade for this period could amount to about $3.7 billion in goods and services. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 6 Feb 80 p 12]

CSO: 2800

CLAIMS OF RAW MATERIALS SAVINGS SERIOUSLY QUESTIONED

Sofia STURSHEL in Bulgarian 1 Feb 80 p 1

[Letter written by Stancho Mitev, supplier, and copied by Chavdar Stoev: "Who Is Cheating Whom?"]

[Text] Dear editorial staff, I am writing this letter in a moment of mental anguish and tormented conscience. As this moment our enterprise is having a holiday. We were declared champions in savings of metal. We received a banner, journalists with cameras and notebooks in hand are swarming each workshop and at the end of the month each one of us will receive a monetary award for "this outstanding achievement on the part of the working team of the enterprise" as was stated by our manager at the official meeting a while ago.

Dear editorial staff, I must say most sincerely that we are liars and that our manager is the greatest liar of all. We have not saved anything but, on the contrary, we have squandered hundreds of tons of iron, and we deserve to be called by the public prosecutor and face a public trial instead of receiving awards and banners. You will ask why. Our enterprise produces a machine ZLS-125 type. I am not going to explain what kind it is as you probably are not going to understand, and it is irrevelant anyway. A machine like any other machine. Before beginning production, the manager and his deputies made a path visiting different committees, institutes and ministries...All the vodka they consumed with different officials, all the cigarettes they smoked at different meetings, and all the free vacations they granted for our seashore resort to all kind of inspectors, chief experts, and everybody else that you can think of until they reached the final calculations of the "cost norm" of the ZLS-125 machine. You will probably ask what "cost norm" means. The "cost norm" shows how much metal, how much power, how many work-hours are needed for the production of a given item. And it was clearly written in the cost norm that 48 kilos of metal were needed for the production of one ZLS-125 machine. Not more and not less!

Dear editorial staff, everybody in our enterprise knows that for one machine of this type, even if you worked with two left hands and squandered left and right, you do not need more than 20 kilos of iron...Do you understand why the bosses hustled like crazy to arrange this fake "cost norm." One small hocus-pocus and that's it: you save for sure 28 sweet little kilos of metal from the production of a single machine. And, of course, you are the champion, with banners, praises, interviews, banquets, money!

Dear editorial staff, I am writing this letter as I already mentioned, overcome with mental anguish and tormented by my conscience. And yet, I should be happy as I will have 30 leva added to my salary due to this hocus-pocus. But I don't feel right, I am hurt, I don't think I will enjoy the money...And do you know why? Because I hear on the radio, read in the newspapers and watch on television that here they have overfulfilled, there they have saved, and I think, yes, I think with horror--suppose they arranged the overfulfillment the way our people did it, this kind of saving...With a small trick! Just like that, out of selfishness, to see their names in the newspapers and to get raises for the managers. By the way, dear editorial staff, to whom does Bulgaria belong. Isn't it ours, we live here don't we, we were born here, our children are born here! Why should we deceive our own country! In fact, whom are we deceiving?

And so I decided to write this letter! And not only for you to read it but to publish it as well. So that everybody could read it. And, come what may. I know, I will have troubles, I know they will call me a slanderer, I know I might get the pink slip...But one cannot keep quiet in such instances, dear editorial staff, and one should not. Because we represent Bulgaria, I, you, all of us!

1010
CSO: 2200

WAGE POLICY IN 1980 DISCUSSED

Prague PRACE A MZDA in Czech No 1, 1980 pp 7-10

[Article by Ivo Bastyr]

> [Text] In wage policies, as in other areas of organization and management, the complications in 1979 tested the ability of our top economic managers, labor and wage units, and trade union officials on all levels, to respond to the demands of incipient conditions. It tested their ability to face functionally and with a commitment, the consequences of the extraordinary situation since the beginning of the year: to overcome the increasing complexity of external economic relations and an entire year of adverse weather conditions which negatively affected the volume of agricultural production. The communist party presidium report of the 14th Central Committee session, stressed that "the principal prerequisite--as well as the greatest opportunity for resolving existing problems and difficulties, is to increase considerably effectiveness of the management processes at all levels and improve the system of planned management." This, to the fullest extent, applies also to wage and personal material incentive management.

The year 1979 confirmed that, in the management and practical implementation of wage policy, it is necessary to concentrate our efforts toward stimulating the decisive tasks and resources of economic development, which depend on an increase in productivity by each individual, each link in our economy, and our entire economy, and on raising efficiency, quality, and economy of production and labor. To use the encouragement through incentives effectively demands a continuing:

--purposeful implementation of bonuses on the principle of merit so that the material standing of each worker is fully dependent on the contribution of his work to society. A clear differentiation in rewards arising from contribution can aid substantially in overcoming accumulated problems, and aiding a smooth future economic and social development;

--equal and balanced application and development of both facets of material incentives, i.e., active stimulation of above-average performance and high social contribution, as well as a personal pecuniary responsibility for nonfulfillment of tasks, below-average performance, and low-quality work and waste.

For practical implementation of the wage policy in the future, and more immediately in 1980, an effort toward a correlation between the creation of wage assets according to the economic performance indicators of an organization, and the amount of wages based on the claims of individuals and work teams according to additional criteria (standards, norms) of the quantity and quality of their work is especially topical. Reaching such correlation requires improvement of work performance norms (standards of quantity and quality of the labor contribution) as well as a correlation between the reward and labor results measured by such objective criteria. At the same time, it is necessary to relate closely the criteria indicators of organizational activity decisive for the creation of the wage funds and the criteria of the amount and quality of individual and the component team work.

Measures adopted in the 1980 implementation plan are based on the following topical propositions.

Basically, the handling of the wage funds in 1980, derives from the concept approved by the implementation plan of 1979; pressures toward improvement of overall performance, efficiency, quality, and economy, continue to develop by:

--reduction of indicators determining the available amount of the wage fund (performance, profit) by amounts corresponding to losses due to low-quality production, that is, performance;

--conditioning the conversion in exceeding the performance standards by fulfillment of decisive substantive segments of the plan (by fulfillment of the economic sales structure in industrial organizations, completion of work on the most important construction projects, etc);

--more demanding conditions for refining the performance indicators in connection with muting the rise of wholesale prices of fuels and energy as part of the [operating] cost;

--strict dealing with organizations which exceed binding wage fund ceilings as well as with the responsible officials.

These conditions of wage regulation significantly affect, in a number of organizations, the amount of available wage funds, and set stricter criteria for wage payments than in the preceding periods. The year 1979 shows that these conditions are also an important component among factors leading to a discrepancy between the actual and available amount of wage funds. In 1980, it will be necessary to take a significant step on all levels of management, in two directions: first, implement all feasible active measures toward limiting low-quality production, toward fulfillment of production structure in all areas of use, and other decisive tasks of the plan which condition the recomputation of wage funds toward reducing material outlays; and second, achieve fuller correlation between the available amount of wage funds resulting from the extent of fulfillment of the criteria indicators and the amount of actual wages according to standards established for work teams and individual workers (above all, the system of premiums and bonus payments). This requires a closer relationship between individual wages (individuals and work team wage incentives) and the costs connected with low-quality production, achieving a product mix according to utility needs, etc.

In this regard, skepticisms are sometimes being voiced about the possibilities of creating such relationships. Experiences from 1979 already show that there is quite a number of possible approaches and the improvement of these conditions must be given attention on a sustained basis. Criteria of quality, industrial structure, and economy, will be applied on a long-term basis in determining the size of the wage funds and the requirements, if they are not increased, will certainly not be eased.

The rules governing the wage funds in 1980 contain, compared to 1979, certain additional refinements deriving from the set of measures, aimed at increasing the pressure for all-embracing conservation, adopted in the implementation plan and federal budget for this year. This includes mainly the following:

--limiting possibilities of increasing the amount of available wage and other personal outlays (wage funds) because of an excess of workers over the number planned (except when hiring individuals with changed work capabilities, Cuban and Vietnamese workers, or in case of increase in calamities or special projects);

--ban on raising levels of budgeted wage funds at the cost of lowering the budgeted amounts in other types of expenditures and a ban on raising the personnel and wage fund ceilings in budgetary and social and cultural organizations at the cost of lowering ceilings in other organizations during the plan implementation;

--reducing the available amount of wage and other personal expenditures or wage funds of economic, budgetary and social and cultural organizations corresponding to 20 percent of the bonus totals which organizations accounted for in 1979 payrolls on the basis of agreements on work performed outside of regular employment and by 10 percent of the total of rewards which organizations (except publishing and editing organizations) accounted for in payrolls in 1979 based on copyright regulations. In Czechoslovak radio and television, rewards based on copyright regulations will not exceed those paid out in 1979.

A special procedure will be instituted for reducing the number of employees and wage funds in connection with the implementation of measures aimed at improvement of performance by the management and the technical-economic group personnel in accordance with the resolution on the 1980 state budget.

In the area of personal wage incentives, the measures adopted in the organizational implementation plan for 1980 aim at more comprehensive incentives systems for all groups and categories of white and blue collar workers toward fulfillment of the decisive features of the plan, i.e., specific tasks in increasing the export effectiveness, quality, economy in fuels energy and propellants, implementation of scientific and technological growth, etc. The orientation of individual wage incentives in these areas must, therefore, be intensively applied not only with respect to management, but also technical and economic personnel, as well as blue-collar workers. The measures also aim at purposeful application of material accountability for nonfulfillment of prescribed indicators and tasks, thereby increasing the wage differentiation among workers according to merit and actual achievement. Pressure is also being increased to achieve a balance between the available and actual amounts of wage funds used.

In this respect, the organizational and implementation plan for 1980 calls for the following:

--for management personnel, the decisive indicators upon which annual bonuses are based, were tied to indicators (or tasks) established for routine evaluation of plan fulfillment by the organization (possibly on certain priority tasks expressly established by the government). Indicators and tasks of individual manager's performance are evaluated by their job structure and amount of responsibility. As in 1979, approval of annual bonuses for management personnel is conditioned on compliance with the ceiling of wage and other costs. In percentage overruns, bonus will be cut by at least one-fifth from their expected amount, in cases of actual cash overruns, bonus will be cut by at least two-fifths. Compared with the existing situation, it will be possible to increase the set amount of annual bonuses (as much as 10 percent, according to the appropriate directive of the Federal Ministry of Labor and Social Affairs) only where there is considerably better fulfillment of decisive indicators, or when significant tasks added during the course of the year, were successfully accomplished. Special awards under the Federal Ministry of Labor and Social Affairs edict, may be approved for management only on the basis of acceptance and fulfillment of important tasks, and desirable overfulfillment of the plan in areas which the CSSR Government specifically outlined in the organizational plan. These are tasks in improving the quality of products, in accordance with CSSR Government Resolution 178/77, in reducing fuels and energy consumption (CSSR Government Presidium Resolution 170/78) and reduction of propellant consumption, and better utilization of long-term assets through a more effective use of shiftwork (Government Resolution 146/77);

--for managers of internal enterprise components, the decisive indicators to which their premiums or bonuses are tied, were set to express the component's tasks directly derived from the state plan indicators (the plan breakdown), and to insure their overall fulfillment. In cases of nonfulfillment of any indicators, premiums or bonuses are cut by at least one fifth of expected amount. We must get to the point where, in case of underfulfillment, it becomes quite clear which components are responsible. Responsible management workers will have their performance rewards reduced or taken away entirely. For management personnel in intra-enterprise components where premiums and rewards are paid from the premium and reward budget allotment, there is a binding condition that when wage or other ceilings of the organization are exceeded, premiums and rewards will be reduced by at least one-fifth of the expected amount. It is necessary to make it obvious which elements were responsible for the plan shortfall; the responsible personnel must have their premiums and performance bonuses reduced or forfeited. A binding condition is established for all managers who are entitled to receive premiums and bonuses from the special compensation fund that their premiums and bonuses may be cut by at least one-fifth of the expected amount if the wage or other cost limits of the organization are exceeded;

--for other technical and economic employees, the overall size of the funds for premiums and bonuses in individual internal enterprise components is dependent on the measure of fulfillment of decisive indicators to which approval of premiums and bonuses is tied by the manager (except for personal assignments which the manager performs independently without participation by other employees of the component). Here too, when nonfulfillment of any one indicator occurs, prior established funds are cut by at least one-fifth; that means that in case of significant nonfulfillment of some decisive indicators or nonfulfillment of all these indicators, the total funds for premiums and bonuses for technical-economic employees of a given element can be cut by at least three-fifths, possibly the rest of the funds can be used for those technical-economic employees whose premiums are established on the basis of fulfillment of personal assignments (individualized indicators) and they have met these requirements;

--for workers, the regulation for premiums during the first quarter of 1980, calls for awarding of performance bonuses calculated in such a way that for each 1 percent of nonfulfillment of each indicator, the premium or performance bonus is reduced by 2 percent of the planned (anticipated) average income without a share in overall business results) or at least 3 percent from the base on which premiums and bonuses are computed.

The demanding conditions of individual wage incentives, which are set forth in the central implementation plan, will further increase due to the implementation of measures adopted by the government in connection with the CSSR budget approvals for 1980. In the interest of increasing pressures toward task fulfillment in organizations, the government decreed that, above all, premiums and bonuses of the management and other personnel responsible for incurring nonperformance penalties and fines will be reduced by 5 percent of these penalties and fines paid by the organization in a given year; these reductions must not exceed 30 percent of the anticipated amounts of premiums and bonuses of the respective employees.

In addition, it is expected that for managers responsible for implementing the measures aimed at raising the effectiveness of the managerial, technical and economic operations (reduction in their numbers), the above tasks will represent one of the decisive indicators for awarding premiums and bonuses; for other management personnel, this task fulfillment will be considered during the overall evaluation of managerial and supervisory activities.

This summary of measures in wage and personal material incentive regulation, centrally adopted in connection with the state plan and budget for 1980, shows a significant increase in the challenge and pinpoint evaluation of existing labor and managerial results, in the insuring of social criteria of performance, efficiency, quality, and economy. The basic aim is to apply pressure toward increasing the effectiveness of the work of the management so that--in accordance with the results of the 14th Central Committee session--prerequisites for better utilization of human labor and energy, for better organization of the production, and for more purposeful application of socialist principles of rewarding according to the quantity and quality of accomplished labor can be established.

CSO: 2400

BRIEFS

CHEMICAL INDUSTRY PLAN--Based on the 1979 chemical industry production figures, Czechoslovakia plans to increase its 1980 petroleum processing by 2.6 percent; plastic materials production by 5.6 percent--of this CSR 9.9 and SSR 2.3 percent--; low pressure polyethelene production by 70 percent; chemical fibers production by 6.6 percent--of this SSR 11.5 percent--and industrial fertilizers production by 3.4 percent. Increased production of rubber products, paper, cellulose, paper cartons and corrugated paper board also has been reported. [Prague HOSPODARSKE NOVINY in Czech 14 Mar 80 p 2]

CSO: 2400

SCIENTIST INTERVIEWED ON ENERGY OUTLOOK

East Berlin TRIBUENE in German 8 Feb 80 pp 5-6

[Answers to readers'questions (names listed at end of interview) by Prof Dr Lutz-Guenther Fleischer, vice president, URANIA; "Coal, Wind, Nuclear Power--Energy in the Trial Stage of Effective Utilization; Avoiding Conversion Losses Additionally Releases Substantial Quantities of Energy for Utilization--for the Next 20 Years Brown Coal Will Continue To Be the GDR's Most Important Source of Energy"]

[Text] Biographic Data

Prof Dr Lutz-Guenther Fleischer was born in Gera in 1938. Following an apprenticeship in fine optics the Carl Zeiss VEB in Jena assigned him in 1956 to the Workers and Peasants Faculty of the Friedrich-Schiller University. He studied at the Carl Schorlemmer Advanced Technical School in Leuna-Merseburg from 1959 to 1964. In 1970 he received an appointment as an advanced school docent at the Carl Schorlemmer Advanced Technical School. In addition to his teaching and research activities he worked on the Scientific Council for Process Engineering at the Ministry for University and Technical School Affairs from 1972 to 1975. Following a number of years of popular scientific work on the URANIA bezirk executive board in Halle Lutz-Guenther Fleischer was appointed vicepresident of URANIA in 1975. In 1978 he qualified as a university lecturer at the Humboldt University in Berlin and received a professorship here in 1979.

Energy--that is a word that evokes ideas, raises problems, stimulates questions and triggers action. A case in point: the many questions from our readers which have descended on us in black and white--comprehensive and interesting. Questions on every aspect of energy and the efficient use of this very important resource. But, some small regret also interferes with our pleasure at their interest: not all questions can be answered in our "Forum."

> Therefore, we chose primarily those questions which were asked repeatedly and which are predominantly of fundamental importance. But the others questions from readers will not be an absolute energy loss. Our partner in the interview will gradually answer them in the TRIBUENE on a selective basis. There is reason enough for doing so, for, after all, to a decisive degree the understanding of the energy problem determines how every individual under our socialist supports, in the interest of the overall economy, the most efficient possible use of our energy resources in accordance with the tasks which have been set by party and government in respect to the energy economy.
>
> For our republic it depends on the fact that the available national income is clearly increasing more rapidly than are the types of energy and materials of all kinds which are employed for it. That is a substantial side of our energy problem--an essential and real target, for, in principle, scientific-technical progress makes possible economic growth that saves energy and raw materials.

[Question] How do we really intend to meet, in the future, the energy requirements which are increasing worldwide?

[Answer] At present, world energy requirements are rising at a rate of 3.5 percent per year. This means, that the quantity of energy sources consumed must double every 15-20 years; in connection with this, the share of the world's countries in these rates of increase is extraordinarily unenven. To date people have been getting the largest part of their usable energy from large, but not infinite reserves of coal, petroleum and natural gas. On an international scale these will continue to be the decisive energy sources for the next few decades. Not until the beginning of the 1990's can nuclear energy become effective as a substantial energy source. In the continued use of fossil energy sources, primarily coal, petroleum and natural gas consideration must, of course, be given to the fact that costs for exploration, development, mining and processing of these materials continue to rise.

[Question] Is it not possible, then, to make better use of existing energy sources?

[Answer] Indeed it is, since the decisive factor in regard to the use of energy in all social sectors is not raw energy (primary energy), but rather usable energy (electric, thermal and chemical energy), which is made available to the user after processing, and effective energy (heat, light and kinetic energy), which are immediately functional in the process, and since every single conversion is encumbered with losses, in the interest of the greatest efficiency, it is a question of keeping the avoidable losses in energy conversion as low as possible. This means that efficient use of usable and effective energy is also an essential energy source. For the GDR it is both possible and necessary on a long-term basis to render usable 25-30 percent of the losses from conversion and use. That would be equal to a raw brown coal equivalent of 25-100 million tons.

[Question] How long will the GDR's brown coal supplies last?

[Answer] Raw brown coal is the primary energy source for the GDR. By a large margin our republic is the leader among all the countries in the world that mine brown coal. The reserves of brown coal, which have been geologically identified and which, given the present state of technical development, can be mined on an industrial basis, amount to about 21 billion tons. If the amount mined is increased from the current 250 to 300 million tons per year, then these brown coal reserves can be exploited for about 70 more years.

[Question] Do we also have deposits of petroleum and natural gas in the GDR?

[Answer] The GDR has very small, almost insignificant deposits of petroleum, and at present produces approximately 8 billion cubic meters of natural gas per year. Further searching for natural gas is supposed to guarantee a long-term stable supply at the level attained. In regard to petroleum we are almost exclusively dependent on imports; in this regard the USSR provides us with the absolutely largest volume.

[Question] Why does the GDR not attempt to extract oil from the botton of the sea?

[Answer] Our republic has no share in the continental shelf of the world's oceans and our share of the Baltic Sea, an inland sea, is not very large. To date, for reasons of environmental protection, among other things, no petroleum is being extracted from the Baltic Sea although there is even some petroleum there.

[Question] How does nuclear energy rank today in energy production?

[Answer] Nuclear energy is primary energy, that is, it must first be converted by means of suitable technological processes into consumer-appropriate usable energy. At present, nuclear energy is primarily being converted into electric energy. According to statistics from the International Atomic Energy Agency, dated 1 January 1979, 225 commercially operated nuclear power plants in 21 countries are producing 111,056 MW of electric energy. The share of nuclear energy in the volume of primary energy in the world will increase quickly and according to divergent estimates will be at 20 to 25 percent in the year 2000. The GDR at present has a roughly 1.6-percent involvement in the production of electric energy in nuclear power plants.

[Question] In your opinion, how promising is energy production from nuclear fusion?

[Answer] Several of the many development designs for nuclear fission power reactors have turned out to be especially suitable. Light water reactors are preferred.

No thought should likely be given before the year 2000 to any industrial use of controlled fusion, which, thus far, has not been controlled on a technical scale of any magnitude. Thermonuclear reactor are, of course, not an alternative to nuclear fission. Rather, the various nuclear-physical processes and the technologies based on them will complement one another.

[Question] Are wind, water, tidal, geothermal and solar energy genuine alternatives to atomic energy?

[Answer] Alternative means usable in place of other energy sources. For energy production this means that, from the primary energy sources mentioned in the question, at least the same quantities and types of usable energy would have to be produced in a cost-favorable manner by means of efficient conversion processes and would have to be constantly available. That is either not efficient or--at least in the next few decades--not even possible. Although it is a tempting idea to tap such self-renewing primary energy sources (income energy) for the production of usable energy. Utilization of primary geothermal and tidal energy is linked to specific geological, geographic and hydrological conditions, respectively, which are present only in several places in the world.

[Question] But is not solar energy making more and more of a stir, even at our latitude?

[Answer] The total annual supply of solar energy for the earth amounts to 1,520 exawatt hours. This quantity is three thousand times greater than total world energy consumption. Of course, the density of the sun's energy flow on the earth's surface is very slight--in our latitude it is 110 watts per square meter on an annual average. In addition, there is the fact that the average annual period of sunshine in Berlin, for example, is only 1,800 hours, which means an availability of less than 20 percent. Thus, large areas would be necessary in order to meet our primary energy requirements from solar energy. For the GDR the areal requirements, in view of the present state of technology, are 1,100 square kilometers, which is roughly 1 percent of our total territory, if the conversion to usable energy were just as efficient as the processes being used at present for other primary energy sources. Moreover, large accumulators would have to be provided which guarantee use of the energy in the remaining approximately 6,800 hours of the year in which the sun does not shine. The arguments prove that the primary energy sources mentioned are not genuine alternatives, although with a certain share and for specific purposes they can be involved in the yield of primary energy. Of course, this amounts to only a few percent.

[Question] Why are our rivers and drinking water reservoirs not used to a greater extent to provide energy?

[Answer] The kinetic and potential energy of the rivers in the GDR is negligible, especially because of the moderate discharge and the small elevation difference, so that converting it into consumer-appropriate forms of energy is not especially significant. Some of our reservoirs and storage facilities are used both for energy production and supplying water. Thus, for example, the Bleiloch, Hohenwarte and Rappbode reservoirs supply both water and electric energy. If the water, which is dammed up for the drinking water supply, is to be used to produce electric energy, then after it has passed through the turbines the water must be dammed again. This requires the construction of a reservoir system. The increased cost, however, is worthwhile only if large volumes are dammed. Several pump-fed accumulation stations are meeting the peak-load requirements for electric energy.

[Question] Are the pump-fed accumulation stations actually efficient?

[Answer] In spite of the loss in energy, they do offer economic advantage because in part they level out the daytime peack-load requirements by using cheap night power. Since the switchover time of a pump-fed accumulation station from pump to turbine operation takes scarcely more than 2 minutes, it also functions as an instant reserve if there are power drops in the grid system.

[Question] Could brown coal be made by filling up exhausted strip mines with wood waste?

[Answer] No, that is basically impossible. Coal, but also petroleum and natural gas are, of course, in their origin plant and animal matter, respectively; their transformation into fossil energy sources was accomplished over millions of years under very specific conditions. Except for fossil remnants there are in practice no longer any material relations to the original products. Coal, for example, developed after complicated polycondensation processes which cannot be repeated on a large scale under artificial conditions by starting with wood.

[Question] The decades-long extraction of petroleum and natural gas has surely caused immense cavities to develop. How are these filled or is there any danger of later cave-ins or earthquakes?

[Answer] The hydrocarbons petroleum and natural gas are contained primarily in porous or strongly fissured storage rock (porous limestone, dolomite, sandstone, sand). Thus, when they are removed, no immense cavities develop. The interspaces taken up by the hydrocarbons are filled up, after extraction by saline water (edge water) and gases. Thus, there need be no concern about cave-ins. Earthquakes are associated with specific tectonically active zones of the earth's crust and in general have nothing to do with the extracting of petroleum or natural gas.

[Question] What effect do the recently discovered enormous petroleum deposits in Venezuela have on the world energy situation?

[Answer] According to figures in the press, the heavy oil deposits which were discovered in the Orinoco belt of Venezuela amount to about 500 billion barrels (1 barrel is approximately equal to 160 liters). By 1978, 74,505 million tons of petroleum were found in capitalist countries, thus the lifetime of this resource is correspondingly lengthened with these new finds.

[Question] Is our need for fossil fuels not much more important than raw materials for the chemical industry?

[Answer] It is true that the raw energy sources are simultaneously also raw materials for a large number of chemical syntheses. Since the end of the 19th century the chemical industry has been making intensified use of coal and petroleum. In the last 3 decades world production of chemical products from mineral oil and natural gas has increased tenfold. Today, 95 percent of all chemical products are based on the hydrocarbons. Especially petroleum and natural gas, as material resources, offer enormous advantages in chemical engineering. At present 6 percent of the petroleum is used worldwide as a raw material for petrochemical processes. In the GDR it is more than 16 percent. The share used as a raw material will have to continue to increase if the total volume of imported petroleum remains more or less constant. Coal would be clearly less favorable as a raw material for a number of products of chemical synthesis. All findings made in the most recent times about the chemistry of brown coal confirm the experience that a process which should proceed from brown coal to liquid fuels or chemical intermediate products can be efficiently realised only with great difficulties.

[Question] Does not the constant release of large quantities of heat into the environment in the processes of producing energy have a negative effect on the climate and thus on the ecological balance of nature?

[Answer] Particularly in developed industrial regions, industrial production, including the energy economy, is of such dimensions that an impact on climate seems possible in the foreseeable future. The knowledge that human activity can be a factor that influences climate is relatively new and for a long time was obscured by the fact that in the past the earth's climate was altered several times by a number of natural influences. Some of these influences are familiar, others are still totally unknown. Moreover, the functional mechanism of the climatic system of our earth is still unexplained. In the past few years there have been numerous studies about the possibilities. and importance of influencing climate as a result of industrial production. Total technical energy production at present amounts to about 0.01 percent of the solar energy which is absorbed by the earth's surface and transformed into heat. The associated heating of the atmosphere is on the order of one-hundredth Kelvin.

[Question] In this connection does not the change in the carbon dioxide content (CO_2) of the earth's atmosphere play a special role?

[Answer] Yes, the carbon dioxide content does influence the heat balance of the atmosphere. Thus, the World Meteorological Organization (WMO) has developed a long-term research and observation project on atmospheric carbon dioxide; it is to determine changes in the carbon dioxide content and ascertain possible influences on the earth's climate. At present, however, no clear-cut statements can be made in regard to the magnitude and direction of the influence on the climate that is caused by the release of carbon dioxide and heat.

[Question] What methods of energy production are profitable in the GDR?

[Answer] As a highly developed industrial country, the GDR also needs increasing amounts of usable energy. These are consumer-appropriate forms of energy obtained by converting primary energy, such as electric energy, thermal energy (hot water, steam) and chemical energy from refined solid, liquid and gaseous fuels (briquet, coke, heating oil, diesel fuel, gasoline, city gas or long-distance gas). The focus is on obtaining these forms of energy from primary energy sources efficiently and with various processes. For the next 20 years crude brown coal will remain the decisive source of energy for the GDR. Nuclear energy will then have an increasing share in the production of electric energy. Those are specific items in our energy economy, on the other hand it is up to us as to how important the contribution of efficient use of energy will become, as the "cheapest energy source".

[Question] What is the orientation of our energy strategy?

[Answer] For us it is a matter of using all sources of energy for healthy and stable growth, of producing usable energy efficiently from the available primary energy sources, of using it efficiently and purposefully in manufacturing, and simultaneously shaping the creative component of the work. This set of objectives produces high demands on overall technology and energy production. Our energy strategy is thus a component of our economic strategy, which is oriented toward opening up our own new energy reserves by increasing the efficiency of the greatly increased energy potential and the establishment of new capacities. In addition, on the basis of the overall economy, greater quantities of energy will be freed by efficient and effective use of energy. The use of rationalization measures for the energy economy in the 1971-1976 Five-Year Plan period came to 32 million tons of crude brown coal and to 40 million tons in the 1976-1980 period.

[Question] What is the ratio of energy consumption between industrial and domestic household use?

[Answer] Households in the GDR, with 15 percent of the usable energy balance, are the second largest energy consumers; industry with 46 percent is the largest. If all forms of usable energy that are used in households are converted to briquets, every household in our republic in the past year consumed about 2.5 tons of brown coal briquets. The just published report of the Central Administration for Statistics shows that in 1979 12 percent more brown coal briquets were made available for the population. Thus, the actual consumption of brown coal briquets amounted to 2.15 tons per household. The difference from the figure cited first stems from the fact that in the households of our republic electric energy, hot water, steam and other energy sources are also being used. Without making cutbacks in coziness and comfort, there can still be important energy saving potentials in households. Economic stimuli and regulations and energy allocations set forth via process analyses are measures which can promote efficient use of energy in industry.

[Question] What effects on the household energy balance do our improved living conditions have?

[Answer] The increasing extent of being equipped with refrigerators, television sets, kitchen appliances, radios and other things is moving toward electric energy requirements in the households that are increasing annually by about 10 percent. For refrigerators, television sets, washing machines and radios alone, GDR households annually consume around 400 billion watt hours of electric energy; that is about 4 percent of the total production of electric energy. About two-thirds of all dwellings in our republic presently are connected to hot water lines or have modern equipment for heating water. This results in the fact that almost 10 percent of the amounts of energy supplied to households in our republic are used for supplying hot water. Food preparation takes 11 percent and space heating 70 percent of the usable energy for households.

[Question] How should dwellings be supplied with heat in the future?

[Answer] In the larger city development areas the future will belong to the overland heating system with extensive involvement of industrial heat producers. This trend toward modern and efficient heating systems will result in a reduction of the cost-intensive brown coal briquet requirements and will reduce damage to the environment by individual fireplaces.

Comparisons have shown that, given similar climatic conditions, our consumption in dwellings heated with long-distance heat is still one-third above the international optimum value. Since by 1990 the share of remotely heated dwellings will double, the result here is an essential task for efficient use of energy. The specific energy use for space heating must be lowered by at least 30 percent on a long-term basis. Key points in the scientific-technical work are the improvement of heat insulation for exterior walls, the use of efficient ventilation and exhaust systems, the development of new structural equipment and the use of efficient measuring, regulating and control equipment. In this, it is a matter of gradually getting closer to an economic optimum with a minimum of heating costs and investments costs. Up to the 1980-1981 heating season about 170,000 dwellings were converted to equipment with central controls that depend on the temperature outside.

[Question] Can energy also be saved in heating old buildings?

[Answer] To a large degree energy consumption is influenced by efficient heating of individual stoves which give off only about 65 percent of the energy used as heat for heating purposes; sensible ventilation, caulking window and door joints and also appropropriate reduction of room temperatures affect energy consumption. This is how serviceable tiled stoves can still be used in a more efficient way.

The above questions were sent in by the following readers: Hans-J. Gleichmann, St. Kilian; Angelo Ledig, Lanzenau; Karl-Heinz Poehler, Leipzig; Wolf Dieter Richter, Berlin; Horst Gutwasser, Leipzig; Ilse Graef, Oberweissbach; Wolfgang Fuchs, Borna; Irmgard Klose, Halberstadt; Rolf Schirmer, Pirna; Eckehard Pass, Antonsthal; Detlef Kraft, Kleinneunhausen; Irmgard Walther, Leipzig; Berta Kiehne, Wusterwitz; Erwin Miosga, Leinefelde; Karla Daut, Leipzig; Andreas Toepel, Muenchenbernsdorf; G. Wagner, Nauwalde; Rudolf Mangler, Leipzig.

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CSO: 2300

SPRING CULTIVATION PREPARATIONS DESCRIBED

Supply of Seed Material

East Berlin NEUES DEUTSCHLAND in German 14 Feb 80 p 3

[Interview with Dr Guenther Koehler, director general of VVB (Association of State Enterprises) for Seed and Plant Material, Quedlinburg, by Erwin Mueller, NEUES DEUTSCHLAND correspondent: "Are We Well Prepared for Sowing Operations?"]

[Text] ND: In order to guarantee the planned grain production the LPG [Agricultural Producer Cooperative] and the VEG [State Farm] Plant Production want to replant fields whose crops have died during the winter with new grain, and also utilize additional possibilities for summer planting. Is enough seed grain available for this purpose?

Dr Guenther Koehler: The LPGs, VEGs and cooperative departments producing seed grain have had good harvests last year. Thus we are in a position to meet the demands for every kind of seed grain and seedlings. This also applies to the planned increase in the cultivation of summer grain.

ND: What new high-yield kinds of grain are available?

Dr Guenther Koehler: For February sowing, summer wheat is very useful. For fields with clay and disintegrated soil conditions the Rena variety produces the best results. For lighter soil conditions Hatri is preferable. From the beginning of March, summer barley should increasingly be used for the cultivation of fields whose crops have died during the winter, and for the planned increases in summer grain cultivation. Nurseries can be adequately supplied with new high-yield kinds of grain.

For planting brewers barley in heavier clay soil I recommend the Lada and Gerlinde varieties, for lighter soil the Grit and Gerlinde varieties, and for disintegrated soil conditions the Grit and Lada varieties. For the production of silo and pellet corn early maturing brands are made available which, when planted early, guarantee the production of high-quality silage.

ND: What progress has been made so far in the preparation of seed grain and seedlings?

Dr Guenther Koehler: Seed grain for spring planting has been prepared to the point that favorable planting times can be observed. At the beginning of the week, grasses, sugar beets and large kernel vegetables were 100 percent ready. For red clover and summer grain 95 percent of the demand is prepared, for turnips 83 percent. Presently, the LPG and VEG Plant Production is preparing spring assortments for seed potatoes for a cultivation acreage of about 500,000 hectares. The quality of the stored seed potatoes is good.

Spring Sowing Projects

East Berlin NEUES DEUTSCHLAND in German 21 Feb 80 p 1

[Reports from Berlin and Frankfurt/Oder: "Farmers Prepare for Sowing--Course Set for Spring Planting--Agricultural Equipment Passes Inspection"]

[Text] Berlin (ND/ADN)--"Weeks of preparation for spring planting" began on Wednesday, 20 February 1980, in all bezirks of the country. By 8 March the collective farmers and workers in socialist agriculture, in cooperation with representatives from local councils, have examined the state of readiness of the mechanics of ordering, the supply and preparation of seed and seedlings, as well as the availability of fertilizer crop protection materials. During spring plantings in the next few weeks, summer grain will have to be planted on approximately 600,000 hectares of land, potatoes on about 500,000 hectares, sugar beets on 265,000 hectares and vegetables on 60,000 hectares.

Frankfurt (Oder) 750 agrotechnicians from the LPG and VEG Plant Production are currently at work in the shops of the agricultural concerns and of the nine county institutions for agricultural technology (KfL) of the Oder Bezirk in order to prepare the tilling machinery. Of the more than 7,000 tractors 90 percent are now ready for work. A portion of the tilling machinery is currently still being repaired.

8889
CSO: 2300

CROP, WEATHER REPORT PUBLISHED FOR JANUARY 1980

East Berlin FELDWIRTSCHAFT in German Vol 21 No 3, Mar 80 p 144

[Article by Dr D. Krumbiegel, GDR Meteorological Service, Central Weather Bureau, Potsdam]

[Text] The Weather in January 1980

Daytime air temperature averages were below normal except during the fifth 5-day period and at the end of the month. There was frequent precipitation up to 7 January and in the third 10-day period. Duration of sunshine remained below the longtime average.

Around 4, from 8 to 21, and from 26 to 29 January, daytime air temperature averages deviated by more than -3K from normal. The third 5-day period was the coldest with temperature anomalies between -7 and -11K. From 22 to 25 and starting with 30 January, the weather was mild. Daytime maxima fluctuated around freezing up to 7 January. Thereafter, they kept below, mostly between -7 and -2°C, partly around -10°C. The mildest weather period in the third 10-day period brought maxima around 3°C, and it warmed up to 5°C at the end of the month (regionally, in the southern half of the GDR, up to 9°C). Except for 31 January, night ground frosts occurred everywhere. The lowest values were recorded around 4 January, from the end of the first to the beginning of the third 10-day period, and around 28 January, often from -10 to -15, partly from -15 to -25°C. Sunshine was longest in duration during the second 10-day period, mainly in the hill and mountain country.

Precipitation in the first two 10-day periods came down as snow, in the third, partly as rain. The yield was mostly insignificant. Very poor in precipitation was the span from 8 to 20 January. The largest precipitation volumes were recorded as follows: 1 January (southern half, 5 to 15 mm); 23 January (mountains, 5 to 15 mm); 25 January (around 5 mm); 30 January (northern half, 5 to 10 mm); and 31 January (north, 10 to 20 mm, south, 5 to 10 mm). A snow cover formed in the plains at the start of the month. The depth of snow was between 5 and 20 cm, went down in the course of the second 10-day period to from 5 to 10 cm, and thickened somewhat again in the third 10-day period. A melt came by the end of the month, rapidly erasing the snow cover in the plains. In the western plains snow often remained below 5 cm, in the mountains between 15 and 50 cm (on summits from 80 to 110 cm).

Weather Data for January 1980 according to the Chief Climatological Office, Potsdam

1. Monthly Air Temperature Averages and Deviations from Normal Values

Schwerin	-3.9°C	-3.8K	Erfurt	-3.5°C	-2.6K
Neubrandenburg	-5.2°C	-4.4K	Leipzig	-3.3°C	-2.8K
Potsdam	-3.9°C	-3.2K	Goerlitz	-4.4°C	-3.1K

2. Average Precipitation according to Bezirks

Rostock	29 mm = 66%	Halle	23 mm = 64%
Schwerin	38 mm = 81%	Erfurt	34 mm = 74%
Neubrandenburg	28 mm = 68%	Gera	38 mm =100%
Potsdam	24 mm = 56%	Suhl	49 mm = 80%
Frankfurt	25 mm = 63%	Dresden	43 mm = 86%
Cottbus	27 mm = 64%	Leipzig	34 mm = 83%
Magdeburg	24 mm = 60%	Karl-Marx-Stadt	44 mm = 77%

Soil. Crop and Labor Process

Up to midmonth, the soil kept cooling off. In the surface soil as well as in the subsoil values lay from 1 to 2K below the longtime averages. Thereafter, temperatures more or less remained constant in all strata. From 0 to 2°C were recorded by the end of the month at a 50-cm depth, from 2 to 4°C, at a 100-cm depth. The soil was frozen throughout the whole month. The deepest frost penetrations were recorded around 20 January, at values between 25 and 50 cm. The mild weather at the end of the month melted the frost only in the outer surface strata. Then things were temporarily soaked (frost islands in deeper strata, rains). From these conditions and the low number of days of intermittent frost in the surface soil one may infer that the soil structure was not greatly affected by the weather. Soil moisture measurements could be carried out only here and there at the end of the month. They confirmed the assumption that the ground water content has not changed much since late December 1979 and stayed more or less in the field capacity range.

Vegetation was completely at rest. The greatly above normal air temperatures by the end of the month (daytime averages on 31 January around 5°C widespread) could not affect vegetation because the ground was frozen. Though the snow was not deep, the snow cover during the first two 10-day periods provided a very good and steady insulation. The lasting frost had much to do with it. But the weather thereafter led to a rapid ageing of the snow cover and reduced its protectiveness considerably. The lowest temperatures recorded of the soil under snow showed clear regional differences in conformity with the increasing depth of snow from west to east. Values between -11 and -7°C occurred at least once in the following regions: the western part of Schwerin Bezirk, the southwest of Neubrandenburg Bezirk, the northeast and west of Potsdam Bezirk, and the bezirks of

Magdeburg, Halle, Leipzig and Erfurt. No other GDR areas dropped below -5°C under the snow. As the mild weather in December 1979 reduced the cold tolerance of the crop in the ground, there is a likelihood of frost damage, especially in the western plains of the GDR. Acreages should be carefully checked, at the latest when vegetation starts.

Except for a few days in the third 10-day period, the soil was trafficable without harm to the beds. Organic fertilizer could be applied unless that was impeded by the snow. Since the soil remained frozen, amelioration efforts were greatly encumbered. For the aeration of large-scale storage areas and areas with outside air, meteorological conditions were mostly unsuitable. Suitable conditions occurred only during the first 10-day period, temporarily and regionally, for no more than 5 days. Between 8 and 21 January air temperatures, except those in the northern bezirks around midmonth, constantly stayed below -2°C. Then the possibilities improved for providing optimum storage climates. During the course of the month there came a clear increase of potato large-scale storage areas with temperatures above 4°C, but that dropped down again by the end of the month.

Meteorological Projections for Farming in March 1980

The initial situation resembles the one of last year. The surface soil frozen above abundant ground water requires considerable energy for dissolving the frost, especially since the subsoil has no heat reserves. So it must be anticipated that the soil for the time being will warm up but gradually. As the soil structures were harmed by precipitation in December and hardly affected in January, we must expect impediments in the nutrient mobilization and friability of the soils. Thereby, furthermore, the precipitation absorption capacity of the soil is likely to be deminished, so that disturbances in the field work may ensue relatively fast. Consequently, there is a high danger of temporary soaking in the surface soil, structural damage, water erosion, and the shifting of nutrients to deeper strata. There is not much of a likelihood that spring cultivation can start ahead of schedule. The planning and preparation of this campaign should take these particulars into account. The pre-winter development of the winter gain, which often was not at an optimum, requires a boost through a first nitrogen application immediately before vegetation starts.

5885
CSO: 2300

ENTERPRISE HEAD INTERVIEWED ON INTERNATIONAL OIL SITUATION

Budapest FIGYELO in Hungarian No 7, 13 Feb 80 p 9

[Interview with Istvan Russay, managing director of MINERALIMPEX by Ivan Wiesel]

> [Text] A recurring problem of recent years has been the effects of the expected changes on the international oil market and the impact of this on Hungarian economic developments. Our staff writer Ivan Wiesel discussed the effect of these things with Dr Istvan Russay, managing director of MINERALIMPEX.

[Question] Recently several reports from capitalist countries suggested no doubt by specific political circles have appeared that the increasingly powerful oil capitalists in foreign countries should be "censured." What impact would this have on the oil market and how would this further sharpen the already acute international political conflicts?

[Answer] It is common knowledge that in various capitalist markets huge operating and monetary capital come from the oil countries. Their order of magnitude and their place of origin in the complicated labyrinths of the banking world can often not even be traced. The large finance-capital accumulation in itself can also bring about economic disorders. In recent days the freezing of Iranian dollar accounts in various places for example, also brought about the problem of what sort of foreign exchange should be used to pay for the purchased oil. Every contrived report, idea, or provisional plan is enough to bring about confusion in this very sensitive market. The disorders in every case effect price increases. The "censures" in a given case, may have unforeseen consequences.

[Question] Following the Caracas OPEC meeting, Yamani, the Saudi Arabian oil minister, announced that oil prices in 1980 would probably not rise, perhaps even decrease. Is such a turnabout possible?

[Answer] In analyzing the Caracas OPEC meeting, I do not see the relevance of such a turnabout taking place in 1980. Following this conference it became known that oil prices are significantly spreading. A difference of 7 - 8 dollars per barrel developed between the highest price and the lowest price. At present all oil offered on the market finds a purchaser and from the viewpoint of the demand, there are no signs of a turnabout as assumed in the question. It is another question that in the past year there was a dual development in the oil pricing system in which the official price and the so-called free market price shows that the latter price level is closer to the now no longer uniform official prices. The oil that was placed on the free market in 1978 was five percent and in 1979, 20 percent of the entire marketed quantity, and therefore it became considerably significant. The change is also indicated by the point that in 1978 only commissional trade participated in free market transactions, whereas today individual producing countries also enter into such deals. In 1979 a 20 to 30 percent price differential also developed between the free oil price and the official price level. The tendency now, as I have stated, is that the official prices and the free price draw closer to each other and the difference currently is about 5 to 8 percent.

[Question] The economists of the oil countries frequently stress that oil cannot be considered a customary commodity and that its role is much greater. Are they correct?

[Answer] This could be debated in the present era of modern capitalism as to what degree of supply and demand can be the regulator of prices and what role is played by such factors as politics, inflation, speculation, etc. There is no doubt that oil in no small measure has become a powerful factor. Nevertheless, I do not share the view that oil must be handled separately and as a priority from the world of commodities, because in the system of interconnections between the commodities it is only one link, for which there are already alternatives. Perhaps this statement is bold, but for years the oil market in essence has been in balance. With the market's sensitivity therefore it is significant that this market is easily manipulated and, for example, with stockpiling purchases the situation can be strained. The free market prices can be driven up as the example of the past few months has shown. Thus, the balance, being artificially fragile, is intensified by every minor vibration. An example of this is the effect of the Iranian events, which with a comparatively small quantity a temporary shortage caused serious troubles in the market.

[Question] In addition to the high price of oil numerous substitute possibilities for it are already profitable and yet progress is long drawn-out in this field. What is the cause of this?

[Answer] There are numerous reasons for this, from which I will focus on two: The fear of market risks of the substitute products; and the barriers supported by the protection of the environment. The alternative technology in many fields has been known for years. The investment costs are high and the government support for this has been insufficient. Perhaps an even greater barrier than this is the venturers fear a decline in the price of hydrocarbons. For example, a debate has been going on for years about the utilization of oil shale and the damaging effects to the environment by the construction of the Canadian oil pipeline. My opinion is that in many respects the environmental protection norms are exaggerated and that such a troublesome situation can come about that while the air will be clean there will be insufficient energy and food. It is also common knowledge that without the employment of chemical industry products (chemical fertilizer, plant protective agents, etc) which is based on hydrocarbon energy sources, the world's food supply cannot be solved. One must therefore guard against extreme views behind which profit interests very often lie.

[Question] What are the prospects for this year's energy supply?

[Answer] A balanced supply can be counted on for Hungary in 1980. This statement is valid not only for our nation but in general for the CEMA nations too. I believe that this year in the European capitalist countries too--despite every unfavorable indication--the supply of energy will be more balanced than it has been in the last few years.

[Question] What is the task of our foreign trade for the procurement of hydrocarbons from the nonsocialist countries in 1980?

[Answer] From the viewpoint of domestic supply the nonsocialist hydrocarbon import possibility is not significantly important in 1980 and in the following years it will depend primarily on what sort of export accomplishments we achieve on these markets. There are a few oil producing countries where the results are already encouraging: we can cite Iraq, Iran, Libya, Algeria, Kuwait, etc.

[Question] What are the energy utilization prospects within the Sixth Five-Year Plan?

[Answer] Our nation's energy supply is linked with CEMA and primarily to the Soviet Union. This link is the basis of energy utilization of the Sixth Five-Year Plan. In addition, the Hungarian energy policy is attempting to explore and utilize domestic potentials. There are few countries in the world where so many exploratory wells have been driven as in our nation. We are also working for the more efficient mining of our coal resources. An example of this is the eocene program. The building of the Paks nuclear power plant is proceeding at full force. The various secondary and tertiary production procedures are increasing the exploration of hydrocarbon reserves. We are implementing a very significant energy conservation program. We wish to increase our imports of hydrocarbons from the nonsocialist market and aid is extended to us from the Adria oil pipeline.

[Question] What sort of tasks are there for foreign trade to increase the efficiency of energy utilization?

[Answer] In this area the tasks of foreign trade are manifold: In the interest of the assurance of energy importation an attractive "hard" export commodity stock must be created and for the production of such commodities it is necessary to stimulate the nation's producers; information must be provided about those means (installations, tools, manufacturing processes, etc) with which energy savings can economically be achieved; and to create the possibility for their importation and, to be able to use them domestically; provisions must be made for the exploration and procurement of such materials which will help in the conservation of energy and cooperation in energy efficient production and the potentialities of contract work must be explored. The increase in the efficiency of energy economy however is a task which requires the cooperation of every branch and in this foreign trade also must utilize its own facilities to the maximum.

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CSO: 2500

SALES TAX CHANGES DESCRIBED

Budapest FIGYELO in Hungarian No 8, 20 Feb 80 p 5

[Article by Tibor Ersek: "Changes in the Sales Tax"]

[Text] In connection with last July's increase of consumer prices and the changes of producer and consumer prices that became effective at the beginning of this year, the sales tax system of consumer goods and services was changed in certain areas. In order to appraise this, it is necessary to overview the situation before the price adjustments.

The internal proportions of the price systems between the consumer and the producer diverged in recent years to a much larger degree than justified. (In addition, the proportions of producer prices have not expressed enough the expenditures that were socially necessary either. The producer prices of food products, for example, were lower, and those of industrial goods were generally higher than the costs.) This was also manifest in the excessive differentiation of sales taxes.

Producer and Consumer Prices

The cause of the separation of the consumer and producer price system is, on the one hand, that the 1968 price reform did not include consumer prices and, on the other hand, that consumer prices did not follow the changes in producer prices or followed them too late in the period between 1968 and 1978.

Because of the increase of producer prices and the relative stability of consumer prices, subsidies for certain products have increased and sales taxes for others have decreased. This process has led to the fact that the producer prices of consumer goods and services (with regard to products, the trade margin is also included here) have, as a whole, risen above consumer prices, that is, the negative two-level price system has developed.

An unjustifiably large part of the net profits in industrial products was built into the producer prices (in the form of charge of assets, production tax and wage tax) and thus the net profit, centralized through the sales tax, was relatively low. Characteristically, a major part of the sum paid in the budget as sales tax (57 percent in 1979) was included in the price of consumer goods.

The elements of net profit, mentioned earlier, were discontinued after the 1 January 1980 regulation of producer prices and thus it became possible to reduce the producer prices of industrial consumer products by about 10 percent. At the same time, the producer prices of energy, on the average, increased by 56 percent, state purchase prices of agricultural products by 11 percent, and the producer prices of food products--calculated in the population's buying structure--by an average of 15 percent. Because the price increases in energy, the wage increases and higher profits were approved, the producer prices of passenger transportation and other consumer services increased. All in all, as calculated in the population's buying structure, producer prices increased about 4-5 percent on 1 January, 1980.

Contrary to this, the 23 July 1979 increase of consumer prices pushed up the price level of consumer goods by a round 9 percent. Within that, the prices of food products increased by 20 percent, those of fuels and energy services by an average of 34 percent, those of passenger cars by 20 percent, and those of construction materials by 12 percent. Fees for certain industrial and cultural services have also increased.

The Standardization of Rates

The changes in price of consumer goods, which were supplementing the 1 January 1980 regulation and which, for the most part, have been in effect since then, have only minimally influenced the proportions between the larger groups of products. (The price of clothing was reduced somewhat and those of hardware and technological products and the non-essential services were increased.)

In the course of the 23 July 1979 and--especially--the 1980 changes of consumer prices, the matter of sales taxes was also solved--within certain limits, of course. The sales taxes' pricing role has increased, and the differentiation of the sales-tax system has decreased. The two-level price system has been abolished. The distribution of the sales tax has become more even, more of it being paid today on industrial goods. Price subsidies have been moderated in a part of the products (although subsidies have increased as a whole) and price diversions have generally become more perspicuous. The planned 1980 revenues from sales taxes are expected to be 58 percent higher than in 1979.

The moderation of the differentiation of the sales tax system is well reflected by the reduction of the tax rates.

Change of Rates in Sales Taxes and
Price Subsidies During the 1 January
1980 Price Regulations (number of items)

Description	Number of tax rates 1 Jan 1979	 1 Jan 1980
Food products	114	88
Consumer goods	40	38
Clothing	145	7
Miscellaneous industrial products	360	87
Services	141	124
Total	800	344

The tax rates have thus decreased to less than half. The rate of decrease is especially apparent in clothing and in the miscellaneous industrial products. For example, the sales tax on adult clothing is a unified 27 percent, and that on adult shoes is 22 percent. Children's clothing--with the exception of subsidized shoes, baby clothing and uniforms--are tax-exempt. The standardization of sales taxes on clothing was especially important, as products made of different materials or by different technology may substitute one another both within certain groups of textile clothing and shoes.

The sales tax is not 11 percent on hardware and technical products, chemical products and the so-called other cultural products. It can be seen, then, that the price regulation made it possible, above all, to strengthen the pricing role of the sales tax on industrial products. The step made in food products, consumer products, heating fuels and services are not satisfactory.

The Deficit Two-Level Price System Has Been Abolished

The deficit two-level price system (which amounted to 3 percent in 1979, not counting the July increase of consumer prices) has been abolished. The data of the 1980 plan show a moderation of the two-levels. However, the relationship between consumer and producer prices is very disparate in consumer goods and services. The producer prices of consumer goods, together with the commercial profit margin, remains almost 10 percent below the consumer prices; on the other hand, the producer prices of consumer services are about 50 percent higher than the fees charged--although these data are average results of wide dispersions.

The distribution of the sales tax is shown in the following table:

Distribution of the Sum of Sales Tax in 1979 and 1980 According to the Main Groups of Products (in percent)

Main Group of Product	1979	1980 (planned)
Food products	3	3
Consumer goods	57	42
Clothing	11	16
Miscellaneous industrial products	27	38
Services	2	1
Total	100	100

The share of consumer goods has been significantly moderated. On the other hand, the share of clothing and the miscellaneous industrial products has been increased. This change does not mean, however, a reduction of sales taxes on consumer goods. The moderation of the producer prices of consumer goods was balanced by the increase of sales taxes.

More Than Justified

The price subsidy in food products, food trade in catering, children's clothing and children's furniture have been moderated. For example, the price subsidy in pork fat has been decreased from 38 to 11 percent, in cow's milk from 57 to 38, in granulated sugar from 24 to 13, in 1-kg loafs of white bread from 42 to 8 percent. (On the other hand, the price subsidy in pork meat has been increased from 16 to 28 percent.) The subsidy of energy fuels has also been increased.

All in all, we can establish that the system of sales taxes has been up-dated during the 1979-80 price regulations but it does not meet all the requirements. The degree of consumer price diversions and, especially, of price subsidies is still higher than is justified by long-range econo-social considerations.

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CSO: 2500

MAJOR EXPORT FIRM EXECUTIVE PRESENTS VIEWS ON BUSINESS PROSPECTS

Budapest FIGYELO in Hungarian 20 Feb 80 p 7

[Interview with MEDICOR Works general manager Dr Istvan Martos, by Dr Magdolna Csath: "The Most Costly Factor Is Time"]

[Text] 1980 has brought about a greater change in the life of our enterprises than we have seen in many years. How the enterprises view this and how they are shaping their future plans, what kind of changes they are making to accommodate to the modification of regulatory system and what kind of difficulties and uncertainties the producing cooperatives are forced to cope with were topics Dr Istvan Martos, MEDICOR general manager, discussed with Dr Magdolna Csath.

[Question] MEDICOR produces a wide range of medical instruments and implements, from syringes all the way up to complete hospitals. How much is your firm's present product structure changing as a result of the revised regulations?

[Answer] It is still too early to judge the combined effect of the new regulations. A study of our foreign prices and any changes in them that may have to be made is currently under way. We are also calculating our products' various indices right now in the light of the new situation. That's why I can't say yet whether we will be emphasizing any given product in place of any other.

We feel, however, that the new prices increase cost responsiveness and that this will improve efficiency. The new prices alter the relative ranking of products and, as a result of this, the product structure changes, too. A more radical change than this will be when the proportion of prime contracting rises at the expense of individual products.

I think the most important effect of the new regulations and the new prices is that more favorable opportunities are opening up at every level for more accurate economic and economically efficiency decision making, which can be expected to make better production and development decisions possible.

[Question] How has the market judged Medicor's products?

[Answer] Customers' requirements vary greatly. These requirements are influenced in equal measure by purchasing power and by habit. When we are deciding on the characteristics a new product is to have preliminary to its development we always have a specific requirement level and a specific market in mind, and we aren't doing the right thing if we automatically and as a matter of principle go after the most demanding markets.

[Question] What market opportunities has your firm's more modest strategy produced?

[Answer] This isn't a modest strategy, but a goal-oriented one. Medicor basically tries to satisfy the needs of public health care. This means a definite technical and price category, a definite market potential. Mass public health care exists in practically every country, but the nature of the market can be very different in different countries. For example, in the United States and in the FRG our biggest customers are private doctors with very large practices, while in Algeria the state health or health-insurance society is the customer. Except in the most highly-developed countries, the most important utilizers of our products are state public health services.

In addition to products that satisfy average requirements we also have a large number intended for a market with more demanding requirements, of course.

[Question] Doesn't this orientation toward the "average" market hinder the firm's development, doesn't it result in your falling below world standards?

[Answer] As I have already said, "average" here means a level of requirements, and in this we are working to achieve the so-called world standards. In most countries the expansion of health services is funded out of the budget, which means that the resources for achieving this goal are limited. Thus it is not a matter of indifference to our customers to what extent they can satisfy the quantitative demands made on them with equipment that is entirely serviceable but not unnecessarily elaborate.

In my opinion we should proceed cautiously in making summary demands that every firm must strive to attain the world level set by the most highly developed countries for everyone of its products. A firm must seek out the potential markets that are most suited to its capabilities and conditions that consequently yield the best results. This policy has worked for us. As a result, we now sell a third of our total production on the capitalist market, and our utilization of imports from capitalist countries is also at an acceptable level.

[Question] Could you give an example of how this policy has proved itself in practice?

[Answer] A good example is the increase in the proportion of so-called simpler products outside the product composition. The price level of simpler products on the world market has changed advantageously. The number of firms producing the most advanced technology, above all microelectronics and computer technology, is growing by leaps and bounds. The reason for this is, in part, that conversion is a relatively simple matter in this production technology, and that the product can be easily used for medical, research or other purposes. In part as a specific development in microelectronics, in part as a result of increased supplies, the prices of medical equipment incorporating the very latest technology have been rising more slowly than prices for traditional, less convertible, equipment. These products are considered technologically less advanced, but from the standpoint of medical usefulness they are as essential as ever. So it happens that while competition is increasing in the market for the most advanced products, the supply of products representing less fashionable technology is relatively tight. (For example, instruments made of steel and metal in general, hospital equipment, operating tables, and different kinds of syringes.) The price of these simpler, more material- and labor-intensive products has recently risen considerably.

[Question] I wonder whether other, foreign firms, Japanese for example, are not thinking the same way as Medicor. Can't we expect competition to sharpen and to be followed by fall in prices on the market for the goods Medicor is recommending?

[Answer] Other firms may think the same way. However, it looks like the demand, and thus the market, is big enough and that the number of firms involved is limited, and therefore the competition will not soon intensify to the degree that it has in electronics. We look at this as a transitional period and estimate it will last about 10 years. Naturally, this doesn't mean that we will not develop our electronic devices as much as we can. It is primarily a matter of ratio changes.

[Question] You mentioned that the rise in the proportion of prime contracting under the new condiitons is also to the firm's advantage. What kinds of plans and what kinds of problems do you have with this form of enterprise?

[Answer] In 1979 prime contracting accounted for approximately 25 percent of our returns from sales. We would like to see this rise to 40 or 50 percent by 1985. We are emphasizing the most advanced form of prime contracting, systems export. However, we are having special problems in this area. For example, a new service now being demanded is educating future consumers. Of course we are talking about goal-oriented training here, not general education. Requirements for training of this type are also familiar in the computer field where one must be trained before one is able to fully utilize the computer. We are prepared to meet this new demand. Decisions about charges for and profits from training, as a service, have still not been made, and another problem arises from the fact that investments connected with this are not counted as production investments. This causes problems, but this year we will be able to conclude our first training-export deal. Our firm will shortly finish training a group of Turkish technicians. We must not forget that this kind of training also has the advantage that those who are trained on our equipment are potential customers for it.

[Question] Speaking of prime contracting, other firms also participate in it. What are the relations between you and these other firms like, do any difficulties arise in the course of such cooperation?

[Answer] Our own products represent a substantial share in prime contracting arrangements. In addition, we obtain some products through cooperation agreements, and other through the wholesale system. Firms that see the possibilities in prime contracting grab at the chance to cooperate when it's offered. For example, we recently held discussions with the Radelkis cooperative that wants to "stake" a laboratory in prime contracting. This will alleviate some problems of ours, internal autarchy can be restrained, and at the same time they can create a branch business for themselves.

[Question] In your opinion how great is the freedom of the firm and the firm's general manager to select from among the possible courses of action established by the market and the regulatory system?

[Answer] In my opinion the enterprise independence insured by regulations is broad enough. There's "only" one problem: money shouldn't be necessary for independent decisions. Because if it is necessary, then it's necessary to ask about it, to ask for it, in as much as the firm does not have it's own money available, or only a small part of what is required. A decision without material consequences is rare, however. This is an important limiting factor which also has an effect on the independence of the firm.

Clarifying who has supply responsibility is also tied to this. Whoever is entrusted with this responsibility must have the means to fulfill his "supply responsibility," otherwise a firm that stands to profit cannot be made responsible for supply, not even morally, and I don't think those opinions morally acceptable that run like this: "even though you are profit oriented it is your civic duty to do this and that even if you lose money on the deal." This may happen occasionally, but it cannot become the general practice. From the standpoint of modernizing the production organization, straightening out supply responsibility is also a basic problem.

[Question] How are decisions being affected by the National Planning Office-Ministry of Finance decree number 104/1979 that prescribes coordinating measures to reduce uneconomical activity?

[Answer] The coordinating process is a reporting one. Its goal is to insure that reductions no longer be made arbitrarily and witout good reason. The firm's manager is free, however, to decide in favor of a reduction against the recommendation resulting from the coordinating process. This is why he cannot be held responsible, but at most condemned morally. Such decisions are thus not subject to economic sanctions, but moral sanctions are possible. It sometimes happens that such an unwelcome decision on a reduction is "counted" in the manager's overall performance evaluation, but I consider this to be a bad method because those who would refrain in any case from making any decisions can easily use it as an excuse. This way we create an out for those who do not want to make any decisions anyway: they have something to use as a justification and they do not have to avoid responsibility. So I think the present situation is definitely one that is not especially favorable for developing an ability for decision-making.

[Question] Enterprise independence and risk ventures are related concepts. Do you think at this point that under the new, or rather, revised, economic conditions it will be more advantageous to be willing to take greater risks?

[Answer] I don't see any progress in this area. To be sure, risk taking is, in principle, possible. However, if I actually take a chance on something and it doesn't work out, then anyone at any time has the right to hold me responsible for it however little the firm's business is affected. If, on the other hand, the results of taking the risk are good, then I receive no credit for it. The situation is not one that encourages risk taking. Without ventures, however, there can't be any significant progress, especially not as far as quality is concerned. Eventually it will have to be decided what risk ventures are and what is the lower limit of possible failure they may incur that we can consider the natural concomitant of a firm's engaging in business. An attempt should be made to codify this. It would help a great deal.

[Question] The future of Medicor depends to a great extent on its ability to compete in the international market, that is, on its own development and marketing policies. Are there any other unresolved problems beyond the firm's influence whose solution would help stabilize your firm's marketing policies?

[Answer] Medicor, as a firm with export experience, would like to conclude private contracts based on socialist international agreements as soon as possible. This is a necessary condition for balanced economic operations in Medicor and other export firms. If the private export contracts with socialist countries based on international agreements that account for more than a third of our plan this year are not concluded on time, then we will have problems with our planned orders for materials. But uncertainty can be very costly, resulting in accumulating supplies, increasing imports from capitalist countries, and transportation and capacity utilization problems. We must strive to find methods in economic relations among socialist countries that encourage confidence and that strengthen foresight and stability. Such a means could be the regular signing of two-year agreements which would need only minor annual changes. Or the date for signing one-year agreements could be moved up to October at the latest to give the firms the minimum time necessary for making arrangements. Otherwise the firms cannot be required to develop the planned inventories, and if this is nevertheless expected of them, it will remain an unrealistic demand. To improve the situation for the Sixth Five-Year Plan, and for more disciplined, organized enlightened work, these things are absolutely necessary.

[Question] Do you have any concerns about non-ruble-based relations?

[Answer] There is greater uncertainty in non-ruble relations, in the judgments of individual countries and the changes that can be expected, than in ruble relations. The effect of this can be moderated if higher-level decisions affecting enterprise plans are made on schedule. For example, we have ideas promising significant business prospects, for which we would require competition credits, however, just as would our rivals. These deals are advantageous, and of comparitively large volume, so we would think that they are worth investing in, particularly under the conditions that now prevail in the international money market. Our sales activity, however, ought to have valid authorization. Existing credit practices, chiefly with regard to the amount of time they require, need modernizing. The same holds for adopting positions on certain investment matters in a timely fashion.

[Question] According to what you have just said, additional loans would be necessary. I know that Medicor has previously taken out loans with the Hungarian National Bank. Would not repaying a loan be difficult under the new conditions?

[Answer] In 1976 Medicor signed a credit contract with the Hungarian National Bank. The obligations we contracted at that time are coming due now under the changed conditions when it is foreseen that our funds available for repayment will be only a fifth or a sixth of the contracted amount. Of course we must pay back what we borrowed from the bank, but I don't think it's right that we have to do it at the original terms, in the originally stipulated period. I am certain that a solution will be found for this problem, which is one that Medicor shares with others. Otherwise, then, it is precisley those firms that earlier showed enterprise and initiative that would find themselves in difficulty. It makes a difference, however, how soon a solution will be found.

[Question] This year is also one when we will become acquainted with the revised regulatory system and its effects. Doubtless everything is giving the impression of new uncertainties....

[Answer] ...and that's not the only thing. Unfortunately there are still ambiguities in some of the regulatory system's norms, in its wage-development index values, for example. This, and the problem I mentioned earlier, concern the preparations for the Sixth Five-Year Plan period. The "wait-and-see" attitude due to the calculated and the actual effects of the revised price system, and the dragging-out of the decision-making process they have as a consequence, restrain the economic organizations from showing enterprise and result--in my opinion--in signs of passivity appearing.

[Question] What does this mean in Medicor's case in particular?

[Answer] One of the things that is holding Medicor back, for example, is the lack, or slowness, of policy formation about repaying investment credits. Since we would like to continue to expand in the future and to arrange for ever-larger, profitable exports, what we don't do this year becomes a missed opportunity.

I think, therefore, that even in spite of all the uncertainty, the administrative organs will have to take a more realistic attitude in these matters, one closer to the firms that show better understanding of how business is conducted: because the most costly factor today is time, and that is what we are wasting.

Naturally even under such conditions we are doing everything possible to make decisions affecting the future and we ask the administrative organs to do the same, knowing that this means taking chances for them, too.

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CSO: 2500

ROMANY ASSESSES POSITION OF AGRICULTURE

Facing Up To Reality

Budapest MAGYAR HIRLAP in Hungarian 3 Feb 80 p 5

[Interview with Dr Pal Romany, minister of agriculture and food industry by Istvan Matko]

[Text] There is little disagreement about the fact that agricultural production is of key importance in the development of our living standards. But there are a number of views being voiced regarding the evaluation of this year's agricultural plan. There are those who think the plan is too ambitious and there are also those who think it is possible to achieve 3 to 5.5 percent annual growth of production without any special effort.

What is the truth of this matter? An even more exciting question is the situation indicating the conditions at the start. What is the opinion of the agrarian sector regarding this question and this year's tasks? This was the topic of discussion between Dr Pal Romany, minister of agriculture and food industry, and Istvan Matko.

[Question] You just finished a difficult year: we know this from the balance sheet prepared by the most recent conference at Godollo. We know much less about future prospects...

[Answer] Agriculture is an equation with many unknowns and production risks are great. Especially important are those aspects which represent the human factors of production, together with economic, engineering, technical and local factors. In the end, results are determined by the technology chosen, adaptable varieties and one other important decision: management. Effects of natural factors may improve or worsen the result, as you mentioned in connection with last year. The latter has happened last year in a number of sensitive sectors of crops and gardening; at the same time, development of animal husbandry continued unabated.

In both hog and sheep farming the growth of stocks was significant; compared to last year, there was improvement in production efficiency and in the balance of agricultural trade. However, we failed to achieve the planned levels of growth. At present we are analyzing the lessons of last year at membership meetings in cooperatives and workers' meetings at state enterprises. At the same time they are discussing their tasks and plans for this year. They are evaluating our agricultural policies which provided the greatest help in eliminating the effects of last year's even greater damages.

Our policy also contains the necessary guidelines concerning the future. For example, mobility of cooperatives and strengthening of bold enterprise are indispensable. This means support for the optimal organization of operations which provides the best results locally, combined with the utilization of natural resources to lead to the elimination of the present problems of large scale enterprises with unfavorable conditions. A progressive lesson may be found in the support given to household and auxiliary plots in the area of production, marketing and new specialized information. This difficult year also provides visible proof that agricultural production now involves large scale enterprises which can be relied upon under complex conditions and are able to fulfil economic policy requirements in their production organization. It suffices to mention the continuous and substantial growth of hog and sheep stocks providing products which are sought after in world markets, the upswing in vegetable oil production and the reduction in egg production in accordance with national requirements due to low export profitability. It is also good to know that our enterprises have done a good job in preparing for last year's price measures.

The most important aspects of our present situation are as follows: we will further increase animal stocks, expand grain production by increasing corn and barley acreages relative to last year's plan. In addition to insuring good domestic supply levels, our export obligations require surpluses. With increased exports, we must count on reduced imports, except for fertilizers and a few other items. Here is the answer to your question: the outlook must be better cost management and improved efficiency. Economy, which is often considered a dry subject but one that cannot be avoided. Our outlook is improved by the strengthened relationship between the various types of agricultural enterprises with regard to economic and legal regulations, planning and direction. A number of existing obstacles have been eliminated starting from January 1 of this year.

[Question] Let me object: agricultural enterprises do not, as a rule, start their analysis by talking about the advantages...

[Answer] This may be so because the fact is that we cannot promise abundance in material and technical production supplies, even though projected levels of fertilizer use per hectare are higher in 1980 than ever before.

The most important requirements for the national economy will remain unchanged in 1980. Improving the trade balance situation, increasing exports and arriving at a correct ratio of accumulation to consumption will continue to be predominant issues. This is necessitated by the direction of our domestic economic processes and the need to reverse the effects of world market processes which are, in many ways, unfavorable to us. These trends appear to be prolonged. It follows that one must regard our 1980 plan more as the appropriate part of the general development policies of the 1980's rather than a mere continuation of the development system of the preceding decade. The 1980 national economic plan says that the share of crop production must increase within agricultural production as a whole while progress in animal husbandry must remain at the present high level in accordance with market relationships. Production increases must be concentrated in large scale agricultural enterprises; at the same time, close attention must be paid to utilizing the productive potential of household and auxiliary plots. An analysis of conditions and demands shows the perspectives of agricultural production are realistic and this year's plan can be fulfilled. One more advantage: incentives and preparedness are better this year.

[Question] What happens to those who are or will be in a difficult situation due to financial problems?

[Answer] The question is justified. Some large scale agricultural enterprises, primarily in the Great Hungarian Plain and in the North, have been facing economic problems for the past few years. The reasons are mainly an inappropriate production structure and, to a lesser extent, other objective and sometimes subjective factors. Knowing the reasons for this situation it is clear that the conditions for economic production can only be created by across-the-board, long range, complex measures. In cooperation with the Ministry of Finance, we performed this work at 17 cooperatives and 5 state farms. The measures taken on the basis of this inquiry, if implemented in a consistent manner, will make it possible to eliminate those sectors which cannot be made profitable and to put an end to the reasons behind the losses. As a result, the majority of the 22 large scale enterprises mentioned are showing a profit in 1980. The same may be said about our loss-making industrial enterprises. Our experience shows that it will be sensible to continue to reexamine large scale enterprises which operate uneconomically and to create the conditions for economic operations by adopting thorough measures, as was done in 1979.

[Question] Finally, how do you see the place of your ministry and the role of the sectors under the jurisdiction of your ministry in the national economy?

[Answer] The place and the role are inseparable. The relative importance of agricultural production will decline in terms of the production of national income and employment, due to increasing capacity of other national sectors. Cooperative peasantry now constitutes a mere 13 percent of active wage-earners; with all agricultural wage-earners included, the proportion is still under 19 percent. Nevertheless, the role of food production is on the increase both domestically and internationally and this trend is expected to continue indefinitely. Comrade Janos Kadar stressed this at the most recent congress; the Central Committee of the Hungarian Socialist

Workers' Party took a similar position when discussing the situation and tasks of agriculture and food industry as a separate item on its agenda in March, 1978.

Although it cannot be said that all branches of the national economy are up to the demands arising from the development of agriculture, at the same time it is true that agriculture fails to fully satisfy the demands of other branches. We should provide a more abundant and extensive selection of food products, more light industry base materials, fibrous plants, as well as furniture industry materials. A few years ago the pharmaceuticals industry was asking for more domestic base materials of a plant origin. The latter has been solved by creating joint incentives; a similar solution is expected in the area of light industry. The situation is more difficult in supplying the demand for technical means of production which are now indispensable for the work of agriculture, food industry and the forestry industry. At one time our industry developed in such a way that the large domestic market represented by the agricultural users mentioned was relegated to the background. Although the situation has improved, primarily through the actions of factories like the RABA Works in Gyor, the dependence of our sector on foreign supplies is unreasonably high. We might even say that the largest "background industry" of Hungarian agricultural production is foreign trade. More than 60 percent of machine and spare parts purchases are made abroad. Recently there has been an increase in power machinery, implements, food processing and packaging machinery produced domestically or through international cooperation. There is a good sign. In the coming years we expect an acceleration of this trend as a result of socialist integration within the framework of CEMA.

Role of Intellectuals

Budapest MUSZAKI ELET in Hungarian 25 Jan 80 p 5

[Article by Dr Pal Romany, minister of agriculture and food industry]

[Text] The demand for intellectual work is on the increase throughout the world. The progress of the scientific and technological revolution and the dynamics of economic development require vastly increased intellectual resources in all areas of production, including agriculture, food industry and forestry. Recently this process has emerged in food production as a whole. About two decades ago agriculture employed a mere 10,000 to 12,000 agrarian intellectuals; the number now is up to approximately 40,000. The number of intellectuals who use their training in chemistry, engineering or law to help in the development for the textile industry is over 10,000.

Intellectuals employed within this sector are an important part of the Hungarian intelligentsia not just because of their numbers but also because of the characteristic features of their work. They are employed in all parts of the country by about 2,000 enterprises, cooperatives, state farms or joint enterprises. They work mostly in the provinces and villages where not only the conditions for production are difficult but social amenities are only partially up to standards.

The overwhelming majority of today's agrarian intellectuals grew up with socialist agriculture. The majority are young (between 25 and 40). Most of them started as agricultural or industrial workers, or peasants. These intellectuals did their part in the socialist construction of agriculture, the formulation and application of rapid biological change and technological modernization, the introduction of modern varieties and new large scale production methods as well as the creation of industrialized production systems. By organizing more sophisticated, more efficient and more up-to-date large scale agricultural production they contributed to the development of the social climate and international experience in farming.

Food Production

At present, when world demand for food is sharply increasing and the difficulties of satisfying this demand are also on the rise, the importance of food production is increasing throughout the world. This implies an increased role for the agrarian intelligentsia which is involved in the development and organization of food production. Almost one half billion people are starving worldwide. Highly industrialized capitalist countries are using food exports as a political and economic weapon. We, the socialist countries, must do everything to ensure that the means provided by science and technology are used to produce food efficiently and economically.

In Hungarian agriculture, where past results provide an even stronger basis for the preservation and development of high levels of production, the future tasks of food production demand maximal utilization of our production conditions and capacities, achieving an optimal production structure and the best possible parameters for production conditions and costs, improvement of work efficiency and profitability, economic material and energy management as well as expansion of economic, competitive exports.

These goals can be accomplished through complex work. Modern, high level food production is closely related to background industry and the successful work of the people working there. Nevertheless, agrarian and other intellectuals working in the sector face the greatest amount of work in the fulfillment of our plans for this year and our Sixth Five Year Plan. This year's plans envisage a 5 to 5.5 percent increase in the gross value of agricultural production over last year; in particular, crop production must increase at a faster rate than animal husbandry.

To begin with, demand for grain must be satisfied. The requirement is approximately 13.5 million tons. Our plans set wheat production at 4.3 tons per hectare and corn production at 5.2 tons per hectare. Furthermore, there is a need to establish a mass fodder base for animal stock and to increase the acreage under oil-producing plants.

We plan to produce vegetables on approximately the same acreage as in previous years. Harvests must increase at least by 10 percent in order to provide for balanced domestic supplies and fulfil our export obligations. 52 percent of the 2.3 million tons of vegetables will be processed by the food industry.

We expect to produce 5.7 million hectoliters of wine which implies a nationwide harvest of 5.2 tons of grape per hectare. In order to provide for domestic supplies and to fulfil export obligations it is necessary to increase total fruit production at a substantial rate. This is a very difficult task.

The Biological Basis

To solve these sizable tasks, agricultural specialists must be intimately acquainted with the available biological base to produce the required quantities of high quality plant products economically and efficiently. The selection of varieties in agricultural production has expanded substantially in the last ten years. At present more than 900 state approved plant varieties are available for crop production. Agricultural engineers must choose those varieties that are most suitable for enterprise and farm conditions as well as domestic and export requirements. We must ensure that shifts in varieties are coordinated with technological development and increased requirements.

Specialists must be better informed about varieties because, in addition to graded varieties, 50 to 60 candidate varieties or foreign varieties of field crops and almost 200 foreign varieties of vegetables are grown every year.

The present biological base is quite extensive. Nevertheless, the most important task of plant breeders and scientific researchers is to further expand and improve this biological base in accordance with needs. The resources provided by international cooperation must be utilized for creating and improving this biological base. Without this, it is no longer possible to develop production of plant crops and to supply a wide range of export demand.

In this connection, the material and technical conditions for reaching planned plant yields are present. Active fertilizer ingredient levels are up by almost 10 percent relative to last year. But this, in itself, is not sufficient to reach planned crop yields. Agricultural specialists must do everything in their power to increase the efficiency of fertilizer use. They must investigate whether the quantity and composition of fertilizers used in the past are optimal for existing soil conditions, varieties and production levels.

Economic use of pesticides is just as important as the question of economic use of fertilizers. In this area it is especially important to organize and implement pesticide technologies in a professional manner.

With regard to the technical equipment used in crop production we see an increasing proportion of heavy power machinery and implements as well as high throughput combines. It is necessary to improve the organization and safe operation of machines; this depands, to a large extent, on agricultural specialists.

Proper storage and handling of agricultural products after harvest require further measures on the part of agricultural specialists. In particular, they must work toward introduction of new handling procedures and mechanization, when required to protect product quality.

There is especial need for further efforts on the part of agrarian intellectuals in the area of animal husbandry. The results of better feed use, genetics, technology, architecture, etc., must be utilized. The planned level of animal meat product output is almost identical to last year's level at over 2 million tons. The proportion of lamb, rabbit and fish production will increase. Unit production costs of meat production are higher than the international average. Thus, it is very important to reduce unit production costs at the enterprise level. Agricultural specialists and livestock farmers must work toward increased use of mass fodders in the feeding of livestock and the utilization of cheaper agricultural or industrial byproducts. They should improve grass yields from pastures and replace as much fodder as possible with cheaper mass feeds. Breeding indicators must be improved and losses reduced.

Organizational and Economic Tasks

Agrarian intellectuals can do a great deal in fulfilling our plans if they use production systems correctly to help improve the results of crop production and animal husbandry.

Agrarian intellectuals played a decisive role in the establishment and development of industrialized production. They created an optimal relationship among production factors, agricultural, technical, chemical and biological conditions. This is happening under conditions where we do not yet have an industrial background of an appropriate size. Nationwide there are about 70 production systems where new, modern production processes make it possible for science to become a productive force.

The leadership and specialists of agricultural and food industry enterprises must develop relations between enterprises.

Production price regulations result in increased costs for agriculture and food industry. Therefore, increased export potential requires a special effort by specialists toward improving material management and foreign trade pricing activity, achieve a relative reduction in production and processing costs and carry out organizational tasks related to these goals. By carrying out these tasks, specialists can greatly improve profitability of exports.

The system of regulations has also changed for our sector. Today, agricultural specialists and intellectuals working in our sector must perform very careful preparatory, organizational work and calculations to improve the economic parameters of production. The activities of intellectuals working within the sector in this period of our development must be characterized by new attitudes, a new outlook and more economics-oriented way of thinking.

Sensible use of the fertility of soils is among the important tasks of our agrarian intellectuals. They must manage our existing fields better. Further efforts are needed to utilize fallow and untilled lands. More attention needs to be paid to the preservation and improvement of soil fertility.

Increased cooperation of intellectuals is needed to improve the efficiency of investments in our sector. Now, in a period of reduced investments, the important task is to rapidly complete large scale investment projects already begun and to formulate technical and organizational measures and procedures for the investment projects of the next five year plan to ensure that deadlines and cost ceilings are met and completion times are reduced. Special attention must be paid to investments in less energy, material and labor intensive machinery.

Human and leadership factors are of decisive importance in the development of our sector and the accomplishment of our tasks. Today it is necessary for agrarian intellectuals to improve their work in the areas of the management, planning, organization and implementation of production, to use valuable experience and to become acquainted with the latest results and procedures of management science, ergonomy and other sciences that bring progress to our sector. But technical proficiency and purely mechanical knowledge are insufficient by themselves. It is necessary to be able to find one's way through economic relationships, prices, sales, the international marketing situation, etc.

More efficient, better quality production at a lower cost requires continued learning, increased specialization and participation in organized continuing education by agrarian intellectuals.

In view of the demands posed by the dynamic progress of productive forces, agrarian intellectuals must play an active role in the acceleration of the development of ideas, which is becoming more and more urgent, as well as improving technological sophistication. Relationships and cooperation among people are especially important in the development of one's abilities and creative work.

The special position of the sector, the great dispersal of agricultural jobs, the great distances between production centers, jobs and homes demand special solutions in the areas of production management, social and cultural amenities as well as the preparation and implementation of central government resolutions. Agrarian intellectuals also carry special responsibilities in that they must play an active role in the changing life and developing culture of villages.

Through their creative activity and thought, agrarian intellectuals help in our economic and social development. They feel and they see ever more clearly that their knowledge, professional activity and political behavior play an important role in fulfilling the tasks of our sector. Our society as a whole expects them to use their productive energies and public activities in the interests of progress and society.

9164
CSO: 2500

CONSTRUCTION OF 'SURGUT' OIL PIPELINE DESCRIBED

Warsaw ZYCIE WARSZAWY in Polish 4 Mar 80 p 5

[Article by Romuald Augustyniak: "Poles Help Build the 'Surgut' Oil Pipeline"]

/Excerpt/ NOVOPOLOTSK, March. Across the undulating snow-covered fields and through dense forests and deep marshes, Polish builders are building their segment of the "Surgut" Oil Pipeline through which crude petroleum from beyond the Urals, from the Tyumen' Deposit, will flow to the Belorussian city of Novopolotsk. More than 4,000 persons supported by a large amount of machinery and equipment are implementing the contract signed between Poland and the USSR which already this year will result in additional deliveries of 1.1 million tons of crude.

This is not the first power project in the USSR implemented with Poland's participation. On the basis of a general agreement between both governments, concluded in December 1974, on the construction of petroleum industry facilities in the USSR and the attendant deliveries of crude to Poland, our teams have already worked on the Orenburg gas pipeline and the Polotsk oil pipeline. Both these tasks were creditably accomplished by Polish builders, who have won the approval of Soviet customers. Their current participation in the Surgut Project represents a continuation of their activities in this field, so to speak.

300 km for "Energopol"

The "Surgut" Oil Pipeline is among the world's largest transmission lines of its kind. Its length exceeds 3000 km, and the inside diameter of the pipe is 1000 mm. Consider also that, in view of the limitations on the extraction of crude in the European part of the Soviet Union, the new pipeline is of tremendous importance to the further development of petrochemical industry in the USSR, as well as in the socialist countries, which receive a substantial part of petroleum from Soviet sources. Polish builders were entrusted with the construction of the western segment of the pipeline, from Andreapol' in the RSFSR to Novopolotsk in the Belorussian SSR, or altogether 300 km. This is less than on the Polotsk Pipeline (442 km), but the terrain on which this task is to be implemented is much more difficult. Suffice it to say that the builders must surmount as many as 90 km of deep marshes extending in segments of from 200 m to 1.5 km in length, as well as nearly 200 km of birch-pine forests through which a broad lane must be cleared in order to lay the pipeline. En route, three broad rivers must be forded: Toropa, Kunya, and Lovat' (the fourth, Dvina, has already been crossed), along with several tens of rivulets and streams.

In addition to laying the oil pipeline itself, the Polish brigades have to build pumping stations as well as a supply station at the petroleum plant in Novopolotsk. The supply station comprises, among other things, four large steel storage tanks as well as two small tanks. Along this entire route it is necessary to install a power line feeding the gate-valve stations, among other things, as well as to build three fairly well-equipped repair stations. In Novopolotsk the Poles will build a training-production combine, and in Velikiye Luki, a large repair and maintenance base as well as the administrative building of the "Surgut" Pipeline. In addition, they will build associated facilities needed for the pipeline maintenance crews: among other things, seven apartment buildings and two preschools.

Thus this is a major task, and the deadlines are tight. Terrain work has been commenced in the latter half of last year, but it began to proceed full steam ahead only after the completion of the Polotsk Pipeline on 26 October of last year.

What Have We Accomplished So Far?

Even before the superheavy-duty trucks of the Steyer marque distributed the first pipe sections, and before the brigades for cutting forest lanes and laying tracks across the marshes started their activities, it was necessary to organize bases for personnel and equipment along the route, including the erection of wooden structures in which the crews were to live and rest after work for months at a time.

By now the builders have completed a sizable portion of their job. As we were informed by Chief Engineer Vladimir Fetko, by the end of last year the Polish brigades prepared 194 km of the route, including the cutting of a broad swath across the forest over 137 km in length. Pipe sections have been transported to 123 km of the route and welded over a route length of 115 km. In addition, 20.3 km of pipe was insulated, laid in excavations, and covered with earth. On the other hand, the progress in building housing facilities has been not as rapid.

About 15 enterprises are now active on the Polish construction areas. Above all, there is the Energopol, which handles the pipelying operations. The other enterprises include the Rzeszow "Instal," the Plotsk "Mostostal," the Gdansk "Energopol," the Pomeranian Association of Industrial Construction with enterprises from Gdansk and Poznan, the Gdansk "Transbud," the Nowy Dwor Social Services Enterprise, and several others.

The entire contract is to be implemented by the winter of 1981. But on 25 January of this year there was signed an agreement stipulating that the so-called start-up complex is to be completed by October of this year. Surgut crude must start flowing to the plant in Novopolotsk before this year is over. To the Polish crews this means the necessity to markedly speed up their operations.

What is included in a start-up complex? Above all, the pipeline itself, as well as the transmission network, the pumping station, and the terminals in Novopolotsk, with two large crude petroleum storage tanks. Thus there is a lot of work to be done, and yet the problems faced by the builders are particularly acute.

Far From Home

Our crews in the USSR operate with a large amount of heavy-duty equipment, both special- and all-purpose, such as various kinds of excavators, bulldozers, and trucks. But in general this equipment has already been intensively used several years on the Polotsk Pipeline, where the operating conditions also have been difficult. This imposes a tremendous burden on the repair and maintenance services.

At the same time, this "exported" foreign construction project reflects like a mirror all the problems faced by Polish domestic industrial construction. There is one difference: in Poland itself, one can always obtain help from neighbors in the same city or association, one can lend or buy something so as to continue the construction, but abroad no such possibilities exist in general, and each equipment order takes fairly long to get fulfilled. In such a situation, even the lack of a V-belt for a truck can produce a problem, not to mention such things as a shortage of spare parts, storage batteries, or tires. The Soviet comrades help the best they can: the Novopolotsk plant accepted for recycling 50 storage batteries from our "Transbud," but such activities are by their very nature of a limited scope. Hence the Polish builders train their sights at the home country, at our native enterprises, which have the duty of supplying everything needed to implement export tasks.

An injection of new equipment is needed. The proper decisions already have been taken--as we were informed in Novopolotsk--and more than 60 machines are ready to be dispatched from Poland to the builders of the Surgut Pipeline. What matters now is that that equipment should reach its destination as soon as possible.

The builders have a claim against the Design Bureau of the "Energopol" because it has been quite tardy in preparing and providing design documents for, among other things, the pumping station. The builders also are asking "Mostostal" to speed up the deliveries of structural steel components for these stations. The standard time of building a pumping station can be as long as 30 months, but here this has to be accomplished within several months, since the start-up of the pipeline depends on it. It can thus be said without exaggerating that each day, each hour, is valuable. Let us also add that, given the local terrain--as we have been assured--winter is a much better season than spring for transporting structural steel components.

This reporter was told the following by the director of the pipeline construction project, Engineer Edward Pindur: "This year's targets are thrice as high in value as last year's. They are difficult to implement, but feasible. This requires, however, far-reaching assistance by our associations from Poland, and the creation of the same atmosphere of commitment at the Surgut project as had reigned during the construction of the Polotsk Pipeline...."

1386
CSO: 2600

NEED CITED TO OVERCOME BARRIERS TO FOOD INDUSTRY GROWTH

Warsaw ZYCIE PARTII in Polish No 1, Jan 80 pp 17-18

[Article by Wlodzimierz Kaminski, Director, Studies and Development Department, Ministry of Food Industry and Purchases]

[Text] The program of improvement of food supplies, approved at the 15th Plenum of the PZPR Central Committee in 1974 and affirmed by the resolutions passed at the 6th and 7th Party Congresses, has a universal and socially common scope, and the food economy is a matter that concerns all of us. The guidelines for the 8th Party Congress again and with the same force emphasize the contral place and key importance of the food program in the socio-economic politics of the coming years.

In the decade of the 1970's there was a significant increase of the role and importance of the food industry in the food economy of our country, although -- of course -- it was not possible to solve all problems, and some of them are still bothersome, difficult, and requiring radical solutions.

However, the growth of the food industry in the years 1971-80 is an undisputed fact. There was an increase in responsibilities and tasks of the food industry, among others, through the development and improvement of longterm procurement contracts, establishment of own raw material bases, development of agronomical and bio-technical functions, broadening of the direct forms of procurement and collection, etc. It is also necessary to note the increase of the food industry tasks vis-a-vis the consumer, among other, through the technological progress, increase in processing, participation of the food industry in shaping the consumption structure, organization of transport and of deliveries to the retail network, etc.

The production level of the food industry in 1980 will be some 90 percent higher than that of 1970. Due to an active technological and investment policy of the 1970's some 225 billion zlotys were allocated for the food industry and some 250 new facilities -- several dozen of them imported -- were constructed with the use of modern technology. At the same time as a result of a proper landuse policy a considerable improvement has been achieved in the territorial distribution of the food industry facilities and the inter-provincial deliveries of raw materials for processing were significantly reduced.

However, one should constantly keep in mind still unsolved problems such as: in 1976-80 increased difficulties with raw materials resulting from poor crops; considerable deterioration of the food trade balance with foreign countries as a result of a tremendous increase in the imports of fodder and grains; increased food demand as a result of unplanned growth of incomes with simultaneous maintaining of low prices for foodstuffs; unequal growth of the food industry by branches and regions as well as during the two last 5-year periods: 1971-75 and 1976-80.

Presently -- according to the data for 1978 -- the participation of the food industry in the total activity of the entire industry is as follows: in employment--11.2 percent; industrial production--15.4; expenditures--24.1; sale of products and services--19.8; and market sales--42.6.

The level of technology and modernization of the food industry has considerably increased and today some 40 percent of production resources in the meat industry and over 50 percent of the milk and frozen foods industries come from the 1970's. There has also been a significant improvement in the level of qualifications and training of personnel.

In the Decade 1981-1990

When comparing the present techno-economic state of the food industry with the growing social needs the following factors can be considered as contributing to growth: strong and modern production base of numerous branches of the food industry created in the 1970's; technical and technological progress; improvement of employees qualifications; and considerable and still untapped reserves in management and raw materials economy. As to the unfavorable conditions--both internal and external--in the development of the food industry in the 1980's one should distinguish, among others, the general recession in the capitalist countries and its negative effect on our foreign trade capabilities, particularly exports; prolonged bad harvests in agriculture and their impact on our food economy; insufficient supplies of non-food items, which could have weakened the excessive demand for food.

In view of the above factors, one can consider the 1980's as a period of continuation and further development of the food policy and economy. It should, then, be a stage with the same social tasks and yet with different conditions and activity methods. It will be a new and qualitatively more difficult stage of growth, which requires implementation and utilization of all--and sizable--reserves and making management efficiency the basic and universal slogan and task of the day. To better illustrate the changed conditions and tasks of the food industry the following comparison can be suggested: 1970's--period of the maximization of investments and imports; and 1980's--the need to intensify, improve, and integrate the activities of the food industry and of other links in the food economy.

The Food Industry and Agriculture

After a rapid increase in the procurement of agricultural raw materials in the years 1971-74, this process was halted as a result of bad agricultural harvests in the years 1975-79. The "raw material barrier" was born, and I consider it the most important obstacle now in the growth of the food economy and industry. Its birth led to both increasing difficulties in supplying the domestic market with food as well as to acute problems in the imports of fodder and grains.

To break this barrier is a burning necessity, then. The main tasks in this respect concern agriculture and its supportive links, of course, nevertheless the role of the food industry in the intensification of food production can and should be considerable.

The food industry must have a complex approach in its raw material policy, that is it should not just order proper quantities of raw materials from agriculture, but also make sure that they are of the right quality and technological usefulness, and that they are ordered at the right time and regions. In addition to the above, the food industry should become an increasingly active organizer of its own raw material bases, among others, through the development of hog procurement contracts, or contracts with specialized farms, etc., as well as continuously look for new forms of cooperation between the food industry and agriculture; in particular gather and analyze experimentally the experiences of the agricultural-industrial complexes, both abroad and at home (e.g. IGOOPOL in Debica, FRUCTOPOL in Lublin); properly accept and evaluate at the producer's facilities or at properly equipped procurement centers the agricultural products and efficiently carry them out to the processing plants; fully utilize raw materials in the food industry plants, which is related, among others, to constant and systematic technological progress, etc.

Technology and Investments

The guidelines for the 8th PZPR Congress stipulate that the production of the food industry should increase by over 20 percent in the years 1981-85. The production tasks of selected main branches in this area are diversified. In particular the guidelines envisage a 23-27 percent increase in the manufacturing of products, obtained through increased development, refinement, and intensification of food processing techniques.

Also, the branches whose production is based on domestic raw materials will be particularly continued and developed. This concerns such industries as potato [what], grain-milling, fruit-vegetable [what], production of food concentrates, frozen goods and culinary items, processed milk goods, and fish and poultry products. Considerable importance should be attached to the improvement of the quality and assortment of production, and particularly to the development of food production for different groups of consumers. This concerns mainly baby food, regenerative meals, and dietetic products, etc.

In foreign trade, the food industry should continue to strengthen the profitability of exports through progress in technology and assortment, better organizational activity, improvement of quality, and winning leading positions on foreign markets to increase the number of our food products, many of which enjoy a longtime and well deserved reputation of high quality as well as taste and health factors.

In the technical-investment policy of the food industry in the 1980's the main focus must be turned to the maximal utilization of the durable property and production potential, created in the 1970's, as well as to the discovery and use of all reserves hidden in the possibilities to improve the organizational structure of the production processes. This is a fundamental condition. Further investing in the growth of the food industry is also indispensable, of course, but it should be rational and careful by giving a priority to modernization and construction of new facilities (with justified exceptions possible). In view of the focus on modernization and reconstruction it is necessary to discuss the need to break the technical barrier, that is, it cannot be allowed that while having modern technology we will not have modern equipment. What it means is that in the 1970's, and especially in the period of 1971-75 the development of the food industry was based to a considerable degree on the imports of ready plants, machines, equipment, and technological lines, while now these tasks must be taken over by the domestic food industry machines industry, whose tasks are naturally being dramatically increased. The understanding of importance of this fact is exemplified, among others, by the complex program for the development of production of machines and equipment for the food industry which was discussed and approved at the meeting of the Politbureau on 14 November 1979.

The need for innovations and modernization of the food industry means that the role of science and technology will increase as well. I have in mind here both the domestic research and development centers, planning and construction bureaus as well as the cooperation with foreign countries, particularly with the CEMA members.

Increase of Productivity a Must

The relative lack of labor force must make a definite impact on the policy of managing the labor force in the food industry in the 1980's. This situation faced most of the interprises and branches of the food industry with the necessity to obtain production increments only through maximization of the labor productivity growth, that is without increase in employment. In some instances it will be even necessary to achieve production increments with simultaneous drop in the number of employees.

These difficult tasks in the area of labor productivity growth require preparations and meeting of a number of important conditions, and especially increasing the qualifications of labor crews, mechanization and automation of production and service processes (the latter mainly in transport), and in general putting in order and improving of labor management. The comparative analysis of labor productivity in the food industry on the plant and branch level domestically and internationally shows that the scope of reserves in this area is considerable. In the process of improvement of organization of production and labor in the food industry the proper attitudes of people and their motivations will be of crucial importance, therefore educating them is of tremendous socio-political importance.

With complete conviction I wish to draw the attention to an urgent need of breaking the "organizational barrier" in the development of the food industry. I consider this barrier--after the raw materials barrier--as the most important obstacle in modernization and acceleration of the growth of the food industry in Poland in the present stage. I believe that in the 1970's the significant technical and technological-production progress was not accompanied by organizational progress, thus creating an unfavorable deficiency and dispropotion. It is present now both in enterprises and on the domestic level.

In order to fulfill the difficult tasks for the food industry at the outset of the 1980's indispensable is above all good and honest work, as well as cooperation of all involved enterprises and institutions, both on regional and central levels. It will not be enough to repeat the hitherto used methods: the conditions of the new socio-economic stage of growth of this country open a whole field for new proposals and initiatives.

8609
CSO: 2600

DEVELOPMENT OF ALTERNATE ENERGY SOURCES

Bucharest REVISTA ECONOMICA in Romanian No 52, 28 Dec 79 pp 18-19

/Article by Dr Mihai G. M. Pop: "Unconventional Energy Sources in Competition with Traditional Ones"/

/Text/ Among the efforts to meet mankind's energy requirements in a nearer or more distant future, the problem of "unconventional energy sources" is becoming increasingly important and many countries of the world have many hopes for it. But it is certain that the way unconventional power engineering can and should be approached in a given country depends primarily upon the prospects of competitive power or viability of each unconventional means in that country's whole energy situation, in the light of its geographic, climatic, technological and social conditions. Therefore the question of the competitive power of unconventional sources is different for each country, but if any valid conclusion is to be drawn every means must be equally encouraged and perfected at the present stage.

This reasoning was basic to the Romanian programs for developing unconventional sources, which began 4-5 years ago and which formulated particular Romanian measures for each of the unconventional energy sources we have and which are to be perfected in the next few years.

In general it is estimated that the specific investment and specific cost of exploiting the unconventional sources will have to be reduced by 3-4 times in the next 10 years if we are to have a series of unconventional measures in 1990 that will be economically viable in the probable energy situation during those years.

But this does not mean that all the new sources are characterized by the same economic indices, and as a matter of fact an order of priority for their exploitation has been established in Romania as follows: geothermal energy, solar energy, wind power, biogas energy, energy from urban wastes, and the energy of low-temperature waste heat sources.

And even for the same energy sources there are different methods of exploitation that even further increase the economic differences between the uses of one or another of the new sources for a given purpose, and this also affects their capacity to compete with the traditional sources used in Romania such as coal, hydrocarbons and water power.

As for solar energy, Romania is in an area with an average annual insolation of 1,400 kilowatt-hours per square meter and an average nebulosity (40-55 percent of the annual quantity of solar energy is intercepted on clear days). The technological methods of exploiting it that have proved their immediate usefulness are those for obtaining temperatures below 100°C for heating water.

The calculations show that theoretically the temperature of a blackbody in the open air can be raised to 91°C with incident energy of 1 kilowatt per square meter (our situation). This temperature can reach 160° if the greenhouse effect is introduced. These two phenomena are in fact used simultaneously in the construction of flat solar collectors, which permit heating a fluid with an effectiveness of 50-60 percent at temperatures below 100°C. A number of capacities which are in fact under construction can be cited among the first uses of this type of collector, such as wood drying chambers that will save 40 tons of conventional fuel a year and an installation; stations for heating water and the premises of zootechnical complexes, a measure leading to estimated savings of up to 7,000 tons of conventional fuel a year when generalized; and installations for heating water in social-cultural constructions with savings estimated at 3,000 tons of conventional fuel a year in 1980 and at about 360,000 tons of conventional fuela year by about 1990. Annual savings of about 145,000 tons of conventional fuel can be made by equipping the equivalent of 100,000 conventional apartments with solar collectors.

And so mere multiplication of a very simple technological process can make considerable savings in fuel, even if at the start the cost of the energy obtained from such a source as well as the specific investment are double or even triple those of the exhaustible traditional sources of fuel.

Among the specific advances so far we note the solar houses in Cimpina, the hotel complex in Saturn-Mangalia, the wood driers in Pitesti, the brick ones in Jimbolia, and the hot water supply of the zootechnical complexes in Barcanesti and Saftica. The necessary experience has been acquired at these installations to operate large collecting fields (1,000-10,000 square meters) as well as that necessary for successful design under much better economic conditions than in the case of the first installations and other much more complex installations. The applications in Romania are not limited to heating or producing hot water, since the studies are also on other subjects such as solar electric power stations with capacities up to 100 kilowatts with the traditional thermal cycle. But it should be mentioned that use of flat solar collectors for such purposes under Romanian conditions shows very unfavorable economic indices compared with those obtained in the traditional thermoelectric power stations. Therefore alongside the efforts to perfect the technologies of these experimental installations, we are also testing the use of some collecting systems with moderate concentrations of solar radiation or even with heavy concentrations (on the order of 200-300 times , leading us to design of solar power stations of the tower type.

Solar energy is directly converted to electric power by means of the photovoltaic or thermoelectric effects now considered among the most promising means of direct interception of solar radiation and its conversion to electric power. The studies made both here and abroad have shown that photovoltaic cells of the monocrystalline silicon or polycrystalline silicon type or those with multiple junctions of the gallium-arsenious /Galiu-Arseniu/ type will permit a considerable reduction of the price of the installed watt from $70-$75 per watt in 1975 to $8-$9 per watt in 1982 and $0.50 per watt in 1990. The turning point in the substantial reduction of prices is expected to be 1983, when the technological breakthrough is anticipated that is absolutely necessary to attain the prices predicted for 1990, since it is estimated that in the middle of the next decade the photovoltaic systems will become economically competitive with the traditional ones.

Once this equipment is perfected we can also hope for suitable measures for the solar electric power stations with direct conversion, which measures will presumably be much cheaper than those using solar energy with a thermal cycle.

Use of wind power is considered economically favorable today for sites with a specific wind potential of about 3,000 kilowatt-hours per square meter a year and competitive with some alternative sources for sites offering over 5,000 kilowatt-hours per square meter a year. At an annual average wind power of about 1,400 kilowatt-hours per square meter (Romania's annual average), it is considered that the main uses of wind power in Romania will be to drive various types of pumps to convey water in irrigation installations, in systems of hydroelectric power stations with accumulation by pumping, and in water supply of isolated communities or to drain flooded lands.

The second stage of utilization of wind power, in units of higher capacities (up to 100 kilowatts), is to be implemented in 2 years at most, since some 20 kilowatt installations are already being constructed by ICEMENERG /Institute for Power Research and Modernization/. In a third, future stage installations with 1-5 milliwatt capacities are to be constructed in mountainous areas with favorable wind velocities and used especially to accumulate energy by pumping water into reservoir lakes. Small wind-powered motors are very widespread in a number of developed countries like the United States for example (about 500,000 units), the USSR (about 100,000 units) etc. There are interesting large installations of 45 and 200 wind-kilowatts in Denmark, and a wind power station of 100 wind-kilowatts with a double rotor 37 meters in diameter in the FRG. The largest installation built so far was the aerogenerator at Grandpa's Knob in Vermont (United States), in which a rated capacity of 1,300 kilowatts was obtained with a wind velocity of 13 meters per second. It was in operation from 1941 to 1945.

Many countries have started building low-capacity installations on an industrial scale as in Switzerland (5 kilowatt wind power installations) with a diameter of 5 meters (costing about $1,900), the FRG (0.5 kilowatt wind power installations) or Italy (1 kilowatt wind power installations).

In Romania studies of the use of the mechanical power of waves for energy began in 1973 when the first claim on this subject was filed at the State Office for Inventions. As contrasted with the favorable natural factors of the locations of marine hydroelectric power stations on other seas and oceans of the world, in an average year on the Black Sea the frequency of strong winds is 30 percent and that of winds faster than 1 meter per second is only 0.5 percent. Because of this calm system in comparison with other geographic areas, the raw energy potential of the waves is relatively limited. Under these circumstances a noteworthy contribution was made by the Romanian specialists of Bucharest ISPE /Institute for Power Studies and Design/ who designed and constructed a model of an original installation which was adapted to the changing conditions of the Black Sea waves and which was already patented in 1977. This model is in fact one of the four advanced measures in the world and is of real future importance to exploitation of this new energy source.

Bioconversion is also a promising field in which interesting results have been obtained in Romania since completion of the semi-industrial pilot station for anaerobic fermentation in Peris. The results so far have shown the possibility of obtaining as much as 600 cubic decimeters of biogas (with a predominant methane content) per kilogram of organic substance with a caloric capacity of up to 6,500 kilocalories per cubic meter. To obtain the necessary temperature for bioconversion (about 40°C) the Peris installation used flat solar collectors as well in order to supply the heat essential to effective maintenance of this process.

This use of bioconversion to obtain liquid fuels (ethanol, methanol) or combustible gases through bacterial decomposition of the biomass or of animal and household wastes is seconded, though to a lesser extent, by the efforts to find methods of obtaining the biomass in large quantities. It is believed that an increase by one order of magnitude in the production of the "energy plants" over the outputs known today could lead to keen interest in their use even in thermoelectric power stations of the traditional type.

The situation of geothermal energy is the most favorable from the standpoint of immediate exploitation on an industrial scale with relatively simple technical resources and relatively low outlays. The geologic prospecting done in Romania has revealed some major sources of geothermal waters in the western area of the country as well as many geothermal anomalies in the Southern Carpathians, Valea Oltului, Dobrogea and other areas of Romania that are indicative of geothermal sources in these areas. Thermal waters with temperatures of 60-100°C have already been exploited particularly in the western part of Romania to heat dwellings and other constructions in Oradea city and in Bihor County as well as other constructions in Satu Mare, Carei, Sinnicolau de Munte, Arad, Timisoara, Herculane and Calimanesti.

The studies under way at the ICEMENERG to perfect exploitation methods in order to intensify use of the heat contained in geothermal waters should also be mentioned in addition to the geologic investigations to discover new sources, determine the reserves and perfect the methods of extracting the geothermal agent. Under Romanian conditions the systems considered best for use of geothermal waters for heating buildings are combined systems comprising three kinds of sources, namely geothermal heat used directly, the heat pump and the peak (additional) boiler.

It follows from the foregoing that the order of merit of the technologies for exploiting the new sources, based on the economic criteria of the cost of the energy produced, the specific investments, the time of recovery of the investment, and the annual available potential of the respective resource is as follows in Romania:

- Exploitation of geothermal energy;

- Exploitation of energy recovered from heat sources with a low thermal potential by means of heat pumps;

- Exploitation of energy from urban wastes;

- Exploitation of agrozootechnical wastes (biogas);

- Exploitation of solar energy.

As a matter of fact this order of merit also occurs as a structure in the evaluations made in other European countries too: France, the FRG etc. It clearly reflects the present maturity of the technology of using the respective source compared with the traditional processes for using energy. At any rate, in view of Romania's particular conditions it is not to be expected that the unconventional energy sources will assume a very great proportion in our energy production in the near future. But it is equally clear that every percentage point of the energy consumption that is covered by use of such resources represents a contribution to the nation's energy independence and consequently unconventional power engineering must be emphasized.

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ROMANIA

STATE BUDGET TO REFLECT INCREASED DEGREE OF SELF-FINANCING

Bucharest REVISTA ECONOMICA in Romanian No 51, 21 Dec 79 pp 4-6

[Article by Gheorghe Boulescu, minister of finances]

[Text] The state budget for 1980 is balanced,having been established in the amount of 315.9 billion lei for incomes and expenses. The incomes of the state budget , coming from taking over a portion of the value of net production for society, profits, tax on goods circulation and the tax for use of land which is state property total 211.4 billion and the expenses for financing the national economy were forecast in the amount of 195.1 billion lei, while expenses for financing social-cultural actions--in the amount of 74.3 billion lei.

The state budget for 1980 assures resources for financing the projects and actions provided in the single national plan for social-economic development. The provisions from the incomes and expenses are established in close agreement with the social and economic indicators approved for the coming year. The remarkable achievements our people have obtained under the party leadership in implementing the current five-year plan and the growth in social product of 7.8 percent, in the national income of 8.8 percent, in investments of 4.9 percent, in volume of foreign trade of 14.8 percent, in labor productivity on the basis of value of net production of 8.7 percent, in volume of sales of goods through socialist trade of 9.3 percent and services porvided for the population of 11.6 percent next year compared with this year are basic elements for substantiating the state budget for next year.

The plan provisions and the budget for next year assure complete financing for the program of measures to raise the standard of living and raise the quality of life for all the people. The salary capital for worker personnel has been planned to be 219.9 billion lei for next year, assuring the amount needed to close the action of increasing salaries in the second stage; in 1980 average nominal salary will be 2,267 lei and the peasants' nominal incomes, calculated per active person, will reach 1,380 lei monthly. The average monthly pension for work put forth and age limit will reach 1,265 lei per month in 1980. The material base for education and well as that in the area of health protection and social assistance and culture will be extended.

Some 344,700 apartments and 5,300 efficiencies will be put into use in 1980.

The Centralized Financial Plan--The Main Overall Financial Balance for the National Economy

The necessary legal framework was assured through the improvements made recently to the Law on Finances, the framework needed to apply the measures for improving the financial mechanism, with the state budget for next year consistently reflecting these measures.

In the area of financial planning, the Law of Finances established that the leadership of financial activity at all organizational steps of the national economy (enterprises, centrals, institutes, ministries and other central or local organs) should take place on the basis of the budget of incomes and expenses. In this context, the budget of incomes and expenses is a means of leadership, control and financial balance at hand for the leadership organs in each unit or central organ. Compilation of the state budget had as its base the budgets of incomes and expenses from the enterprises, centrals, institutes, ministries and people's councils.

A thorough analysis of the budgets of incomes and expenses of the industrial centrals has assured a more well-based substantiation for the financial indicators for 1980. Starting next year, the move on this base will be for direct establishment of financial indicators by centrals, such as profit, taking over for society a portion of the value of net production, amortization of fixed assets, tax on the circulation of goods and growth in circulating means.

Starting with the financial planning for 1980, an increased role has been given to the centralized financial plan of the national economy as the main financial balance overall of the economy, seeking in particular the growth in its role in assuring the overall financial balance. The Law on Finances has provided tasks for the central organs to take measures to fulfill the centralized financial plan under good conditions and to seek execution of it.

The centralized financial plan comprises the financial resources of the national economy and destination of them and the financial activities of the state as well as cooperative units. As a result of the rise in the degree of the units' self-financing, a large volume of assets no longer are provided in the state budget, but rather in the units' budgets of incomes and expenses.

At the level of the national economy, these resources as well as the attached expenses, however, are provided in the centralized financial plan in order to assure the planned distribution of them and to seek efficient use of them in conformity with the provisions of the law.

Setting the Size of the Economic Units' Assets on the Basis of the Budget of Incomes and Expenses

Within the measures to improve the economic units' finances, the RCP Central Committee Plenum of March 1978 placed a special emphasis on strengthening the units' economic-financial self-management and increasing their degree of self-financing. Through the activity they carry out the economic units are required to assure to cover the expenses from their own incomes, pay back from the results obtained in the shortest possible time the monetary assets received from society, contribute to forming society's general capital and establishing capitalfor their own development as well as assets intended as material incentives for the workers collectives.

In accordance with the Law on Finances, the state economic units' own assets are established from profit and amortization of fixed assets. The enterprises establish the following capital:capital of economic development,capital for circulating resources,capital for housing construction and other social investments,capital for worker participation in profits and capital for social actions.

In 1980 the enterprises' degree of self-financing will rise. They will cover the expenses for investments and need for circulating resources from their own resources to an increased extent. So, the economic development capital in 1980 will rise 57 percent compared with 1979, the circulating resources capital --29 percent, and capital for housing construction and other social investment--14 percent.

The capital intended for the workers' collectives' material incentives also will record a growth. Thus, capital for social actions will rise nearly 12 percent, while the capital for worker participation in profits under comparable conditions will rise 14 percent.

The centrals establish the following:capital for financing investments for the new enterprises and for financing large development; reserve capital for circulating resources. Their own resources allocated by the enterprises subordinate to the centrals for the first capital in 1980 will rise nearly 9 percent compared with 1979, while the second will rise nearly 13 percent.

As a portion of the newly created value in the economic units' production activity, profit gains increased value in providing incentives for the collectives in each economic unit to carry out efficient activity with maximum results. In 1980,34 percent compared with this year's approximately 28 percent will be left to the enterprises and centrals for their capital from the total volume of profits planned.

Broadening the economic units' self-financing by leaving at their disposal a larger portion of the profits compared with the preceding year, as well as extending the principle of self-financing to certain activities and units, for which both incomes as well as expenses were reflected in the budget in the past, have influenced the volume of the state budget for 1980. Thus, it's absolute volume compared with 1979 is lower; unde comparable conditions, the incomes and expenses of the state budget rise 11.6 percent.

Increasing the Role of Bank Credit

The Law on Finances establishes that the investments of the enterprises which do not fit into the category of those for new enterprises and large development are financed from each enterprise's own capital for social-economic development and completed from bank credits. Credits for the socialist units' investments are made for a term of up to 15 years; in agriculture this term may be up to 25 years. The credits for investments given to the enterprises are repaid from their own capital which is established in the coming periods. The banks give credit for investment if, following an analysis, it is found that conditions are assured for repayment within the terms established by law and that marketing of the production is assured in accordance with the documents approved and thet the projects and investment expenses are included in the plan provisions. The law provides that the banks will refuse to give credit in cases where conditions are not created for efficient utilization of the capital.

In the budgets of incomes and expenses for the economic units for 1980 and in drawing up the state budget for the year, it was borne in mind that bank credit, which will contribute to strengthening control over the particular expenses and to the efficiency of utilizing the assets allocated, intervenes in completing the enterprises' development capital. Thus, bank credit will participate in financing the enterprises' investments in proportion of more than 34 percent compared with around 27 percent this year.

An increased role also is being given to credits for the economic units' circulating resources needed for production and circulation of goods, assuring both the broadening of self-financing in this area as well as the participation of bank credit in assuring the necessary resources, as a completion.

The law provides that the total need for circulating resources is determined by the budget of incomes and expenses of each economic unit on the basis of stocks and other expenses like circulating resources, given a size depending on the plan tasks, stock norms and standards for circulating resources. Financing of the circulating resources is assured from the capital for circulating resources, other resources temporarily at the disposal of the unit and completed with bank credit.

Credit for circulating resources is given by the banks on the basis of an analysis made beforehand of the economic-financial situation of the unit being given the credit and assurance that it is going to be repaid on time and under conditions of efficient utilization of capital.

Generally, the rise in total need for circulating resources compared with 1979 in the budgets of incomes and expenses for the enterprieses for 1980 is being covered in a proportion of 60 percent of their own profits, while the remainder is from bank credits. Under these conditions, as a result of increasing production tasks, the absolute volume of bank credits which are to be received by the enterprises will rise, although their share in total circulating resources will be lower, marking a rise in the degree of self-financing.

By raising the role of bank credit in the financing of the economic units' activity both in the area of investments as well as in that of circulating resources, conditions are created for continuing to broaden self-financing in the future, since the credits will be repaid from their own resources. At the same time, the use of reserves temporarily existing in the banks is assured through bank credit for financing of the national oeconomy.

In this context, beginning with 1980, together with the centralized financial plan of the socialist economy as a means of overall financial balance, both the plan for short-term credits as well as the plan for medium-term and long-term credits will gain an increased role. These plans establish the volume of credits needed for the development of production, services and circulation of goods and the achievement of investment projects in completing the units' own assets as well as covering resources. The mechanism for drawing up the budgets of incomes and expenses in the economic units under conditions of financial balance requires a strict correlation between the provisions of the credit plans and the credit ceilings in the particular budgets.

Carrying out the activity of each economic unit under conditions of a financial balance and inclusion into the level approved by the expenses and by the resources is a requirement for correct management of the monetary resources allocated and for raising economic efficiency.

Self-Financing of the Administrative-Territorial Units

The local budgets included in the state budget for 1980 total 57.4 billion lei, which represent around 18 percent of the state budget's volume In accordance with the Law on Finances, the expenses of the local budgets are covered from the incomes achieved by the people's councils and amounts deducted from the incomes coming from the national units on the particular territory and from subsidies from the national budget.

Their own incomes as provided in the local budgets for 1980 together with the sums deducted from the incomes of the national budget which are achieved on the territory of each administrative-territorial unit assure around 92 percent of these budgets' expenses. Deductions from the national budget are given for the difference.

The 1980 budget reflects the rise in the degree of the administrative-territorial units' self-financing. The number of people's councils--county, municipal, city and commune--which are covering their expenses from their own incomes and from amounts deducted from the incomes of the national enterprises will more than double in 1980 compared with 1978.

The law for adoption of the state budget for 1980 provides the task for the people's councils whose budgets are balanced with deductions to work out programs of measures to reduce or eliminate these particular deductions.

The main direction of action for implementing self-financing for all the administrative-territorial units is to raise the base of their own incomes through development of industrial activities, providing services and other income-producing activities. More attention also should be given to utilizing material and monetary assets with higher efficiency.

Requirements for Executing the State Budget Provisions

Achieving the incomes forecast and fulfilling the actions within the expenses planned under conditions of maximum economic and social efficiency are the basis of the requirements for achieving the budgetary provisions for the next year under the best possible conditions.

The main direction of action for achieving the incomes in the state budget and in the unit's budgets of incomes and expenses for all factors should be the following: fulfillment of the net production tasks, physical production and production by varieties and assurance of complete marketing of them on the basis of contracts or firm orders; strict inclusion in the planned leveel of production costs and circulating expenses; saving on raw materials, materials, fuel and energy; a more accentuated gorwth in labor productivity; rise in the degree of profitability of each economic unit and each product; having each economic unit achieve the resources planned for paying back the capital received from society and for establishing its own capital; assuring permanent balance between receipts and payments through inclusion in the stock norms and normatives for the circulating resources established, eliminating and preventing tie-ups of capital in stocks of material values and speeding up rotation.

Implementation of the actions planned in the area of investments requires actions on time from the beneficiaries of investments, the designers, builders and central and local organs for assuring the technical-economic documents on time; organization of the job sites; assurance of complete establishment of their own capital intended for investments; utilization of capital intended for investments with greater efficiency by reducing the cost of the investment projects, achieving savings on material consumption, obtaining maximum production for each leu spent; reducing and preventing tie-ups of capital in unfinished investments and in equipment which has stayed too long on the job site; strengthening order and discipline in the management of material and monetary resources on the job sites and in use of the construction equipment and labor force.

Each institute whose budget of incomes and expenses provides for such expenses in utilizing the capital allocated through the state budget for financing of social-cultural actions has the task of seeking that the achievement of the social-cultural actions established through the plan be made under conditions of utilizing the existing material base in a manager's spirit, of applying a strict savings plan and obtaining maximum social efficiency.

Drawn up under conditions of a general economic balance provided in the single national plan for social-economic development and under conditions of a financial and monetary balance, achievement of the state budget for next year requires that the financial-banking organs, together with the organs in ministries, centrals, enterprises and institutes, cotinue to take action to fulfill the provisions in the budgets of incomes and expenses of all the units in the economy.

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CHANGING COMPOSITION, CONCENTRATION OF LABOR FORCE

Bucharest REVISTA ECONOMICA in Romanian No 48, 30 Nov 79 pp 20-22

[Article by Prof Dr Vl. Trebici: "The Increase in the Degree of Employment of the Population Against the Background of Multilateral Development of the National Economy"]

[Text] Among other things, the historic documents of the Twelfth Party Congress call for the population employed in industry and the other non-agricultural sectors to be more than three-fourths (78 percent) in 1985, while the population employed in agriculture is to reduce continuously to the point where it reaches approximately one fifth (21.6 percent) of the working population of the nation. It should be pointed out that about three decades ago the population employed in the non-agricultural sectors represented only one quarter (25.7 percent) and that at present this figure has reached 69 percent. The evolution is even more clearly shown by absolute figures: in 1950, the number of people employed in the non-agricultural sectors was 2,150,900, in 1978 it was 6,915,100, and in 1985 the number is to reach about 9 million. Consequently, in three and a half decades the number of people employed in industry, construction, transportation and the other non-agricultural sectors will have increased by more than 6 million people or by approximately 4.2 times. In other words, the average annual rate of growth of people employed in the non-agricultural sectors in the period 1950-1985 is 4.2 percent annually, while the rate of growth of the total population in the country during the same period will have been 1.1 percent and the rate of growth of the working population 0.9 percent annually.

In their sober language, these figures--together with other indicators--eloquently show the path that Romania is taking from the stage of a developing nation to that of a nation of moderate development* and show the dimension of demo-economic processes of special scope, containing within them the significance of qualitative changes and profound mutations in structure. Indeed, the growth in the population employed in the non-agricultural sectors from 25.7 percent to 78 percent during a 35 pear period attests not only to a qualitative transformation, but also to an especially rapid rate of change, a rate which places Romania among the countries with the most accentuated economic and social dynamism.

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*The essential characteristics for inclusion of a country in the category of developing nations, nations with moderate development, or developed nations are: the national income per inhabitant, the percentage of population employed in agriculture, literacy and the level of education of the population, the proportion of urban population, and average life duration.

Proceeding thus from the above figures concerning the employed population, let me try to reiterate its evolution and to outline in more detail its prospects in the general context of social-economic development and to point out the driving forces behind these changes.

In the concept of the Romanian Communist Party, the population--man in the plural--is the greatest good. This principle finds concretization in the strategies and policies of social-economic development: the affirmation of an increase in the welfare of the population as the supreme goal of the entire policy of the Romanian Communist Party and the creation of conditions for employment of the labor resources. As in any process, I shall identify a phase in which a quantitative effort predominates and another later phase in which the qualitative aspects are even more pregnantly affirmed. While for standard of living this means satisfaction of the vital needs for food, clothing and shelter--and a changeover to a systematic increase in the welfare and cultural level, with increasingly more accentuated implication of the qualitative aspects in the field of employment of labor resources--the problem is posed first of all of ensuring the employment of all citizens of the nation under the conditions of an extensive type economy, a structure which was initially marked by backwardness, and then, gradually, of creating jobs at an increasingly high level of technical endowment, concommitant with changes in the structure of the national economy brought about through an energetic process of modernization serving to drive the industrialization of the nation. Our party and state deserve special merit for having been able within a relatively short historic period of time to ensure the employment of the labor resources and for having liquidated once and for all unemployment and the different forms of underutilization of the population, thus achieveing a histroic goal. Only after realization of this objective it really possible to apply strategies which would modify the structure the employed population and to achieve a systematic improvement of the itative characteristics of this structure, a process in which, as can seen from the documents of the Twelfth Congress, the 1981-1985 Five-Year Plan has a decisive role.

From the standpoint of level of education and average life duration, Romania is included in the category of developed nations; with a national income of $2,400 - $2,500 and 21.6 percent of the population employed in agriculture and an urban population of 54.5 percent, Romania, from these points of view, will have acquired the characteristics of a nation with moderate development.

This is the place to mention once again that the active population (the employed population) is the principal production force, the creators of material goods and spiritual values, the creators of the social product and the national income. But the efficacy of their activity depends on its quality, which in turn is determined by the level of teaching and professional skill--in other words, the educational reserves available. In this respect, in the report presented to the Twelfth Party Congress by the secretary general of the party, comrade Nicolae Ceausescu, it was pointed out that: "One essential objective of the Five-Year Plan is the continued development of education on the basis of polytechnicalization and close integration with production and research, thorough organization of the training of the labor force, generalization of the process for retraining of cadres, and improvement in the professional training of all workers." Additionally, the efficacy of work is influenced by the quality of the work equipments and the level of technical endowment, which finds overall expression in the level of individual and social work productivity.

Table No 1. Structure of Employed Population by Primary, Secondary and Tertiary Sectors (in percent)

Sectoare (1)	1950	1970	1975	1978	1980	1985
TOTAL	100,0	100,0	100,0	100,0	100,0	100,0
Sectorul primar (2) (agricultura) *)	74,1	49,1	37,8	32,5	29,1	21,6
Sectorul industrial (3) (industria si constructiile)	14,2	30,8	38,7	42,5	44,3	51,6
Sectorul tertiar (4) (celelalte ramuri)	11,7	20,1	23,5	25,0	26,6	26,8

(5) *) Fara silvicultura, inclusa in ,,celelalte ramuri", reprezentind circa 0,2-0,3"$_{o}$.

Key:
1. Sectors
2. Primary sector (agriculture)
3. Industrial sector (industry and construction)
4. Tertiary sector (the other branches)
5. Exclusive of silviculture, which is included in "the other branches," representing about 0.2-0.3 percent

However, it is impossible to make an abstraction of the fact that the active population is determined by the number and the structure of the total population and by the birth and death rates. On the other hand, employment of the potential labor resources is assured by the economic system, by the supply of jobs. Also, it must be emphasized that the labor resource or labor potential is a limited resource both at the national level and at the territorial, county and zonal level of the nation. Theoretically, speaking, a national population which increases at an annual rate of 1-1.1 percent--which is the case for our country--cannot supply an increase in potential labor resources any higher than at a rate of 1-1.1 percent. In reality, however, this rate is lower since it is influenced by the variable numbers in the generations which successfully enter into the work-age population. If we further add that each year there is an increase in the number of young people who are included in the educational system and thus a delay in the time when they become part of the employed population, it can be easily understood why the rate of growth of the employed population, it can be easily understood why the rate of growth of the employed population is less than the rate of growth of the total population. Consequently, the employed population has a double determination: demographic and economic. This defines it as the most important demo-economic system in society. Under the conditions mentioned, concern for the quality of the employed population, for the quality of the organization of work and production, becomes fundamental and is a part of the general concern for affirmation of quality in all fields of activity, a concern which is characteristic of the present Five-Year Plan and even more so for the next Five-Year Plan.

From this very perspective and taking into consideration the limited character of the labor force resources and the intensive rate of our economic development, the secretary general of the party pointed out that "It will be necessary to act to achieve cyberneticized management of the technological processes, generalization of work using even more machines, rational utilization of work time, use of electronic equipment in the programming of production and in calculation and accounting work, and, on this basis, reduction of office personnel to the number strictly necessary. The skills of workers in all branches must be raised to the level of complexity of modern production, at the same time assuring that scientific standards are set for work." All of this is obviously designed to see that the work of each person becomes as fruitful as possible.

Considering that the work-age population is between the ages of 16-61 for men and 16-56 for women[1], the proportion of the work-age population in total population is about 51-52 percent, while the proportion of employed population in total population is 46-47 percent. It can be seen that the degree of employment of the work-age population is about 90 percent.[2] The

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1. These limits, established by labor legislation, differ in some cases. For agriculture, the retirement limit is higher and for other professions and branches it is lower.
2. If we take into consideration the fact that the employed population includes active persons beyond the retirement limit, the degree of employment is somewhat lower.

difference is represented by the young people included in the educational system, a relatively low portion of the women who are housewives, and a certain number of persons who are unable to work. I will say that having a proportion of 46-47 percent of employed population in total population and a proportion of about 90 percent of employed population in work-age population, Romania has a level of employment of population which is among the highest in the world. The right to work in Romania, which is confirmed by the fundamental law of the nation, is a reality guaranteed by the entire economic development.

According to data of the UN and the International Bureau of Labor, the proportion of employed population in total population varies between 25 and 45 percent. This low level is due to an appreciable extent to the high proportion of unemployment[3] and the limited possibilities for women to participate in social work.

In pointing out the real right to work of all citizens of socialist Romania, we must include on the same level the real equality of women under the law, especially equality in work, which has been achieved in the process of social-economic development.

The degree of employment of the population of Romania is to increase in the 1981-1985 Five-Year Plan: in 1980, the number of people employed per 1,000 inhabitants will be 461 and in 1985 this will increase to 481. The increase will be brought about not only by an intensive inclusion of housewives in the employed population, but also by the entry into the employed population of some generations with numerically greater numbers, in other words, owing to a more favorable demographic regime.

While the numerical increase in employed population is and will be of modest proportions and this, as I said before, is due to 1-1.1 percent annual rate of growth of population, on the other hand the most significant aspects are of a qualitative order, that is, changes in structure. This can be seen first of all in the changes in the distribution of employed population in the branches of the national economy, and secondly in the increase in the proportion of working people in employed population, and, finally, in the increase in the skill levels. In a synthetic form, the process can be followed on the basis of the data given below: Under the effect of industrialization and, more generally, the development of the national economy, modernization of the structure of the employed population can be seen in the increase in the proportion of employed population in the secondary sector from 14.2 percent (1950) to 51.6 percent (1985). The fact should not escape attention that the proportion of population employed in the tertiary sector has increased, especially after 1970, with special attention being given to the problem of services for the population. As pointed out in the program directive for increasing the standard of living in the period 1981-1985 and for achieving a continued increase in the quality of life, the rate of growth of the provision of services will be intensified, with priority given to repair services, as well as services which ease work in the family.

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[3] According to the West German newspaper FRANKFURTER RUNDSCHAU, the proportion of unemployment in the total labor force in Common Market countries varies between 4 percent and about 9 percent; in absolute figures this means about 6 million unemployed in the eight countries of the Common Market.

Let us examine these structural changes in more detail, starting with the absolute number of employed population. In 1950, the number of people employed in industry and construction was 1,187,000; in 19 , this figure had reached 3,045,000; in 1985, this figure will reach about 5,934,000. In other words, it will increase about five times, while the total population employed will show an increase of 1.4 times in the period from 1950 to 1985.

There has also been an increase in the proportion of working people in total employed population. While in 1950 the number of working people was 2,123,000, representing approximately one quarter (25.3 percent) of the employed population, in 1978 this figure reached 9,656,300, representing 67.7 percent of the employed population. In 1980, this proportion will be 71.3 percent, and in 1985 73.2 percent. In the main, the increase will be due to a decrease in the population employed in agriculture and more precisely a decrease in the number of peasants in cooperative farms and individual peasants.[4]

Although during the period 1950 to 1985 the total employed population increased by 3,122,800 or about 89,000 people annually, the need for new jobs is much greater. For instance, in the period 1950-1978 the number of employed population increased by 1,912,800 or 68,300 annually; during the same period the number of jobs created was 4,833,300 or 172,600 annually. The explanation lies in the fact that the transfer of employed population from agriculture--the principal transfer--into non-agricultural sectors presupposes the disestablishment of a number of jobs in agriculture and the creation of new jobs in the non-agricultural sectors, especially in industry and construction. Indeed, of the more than 4.8 million jobs created about 2.9 million were created in industry and construction (over 60 percent of the total). In the same period, 1950-1978, the number of people employed in agriculture dropped by 2,864,100 people. It can easily be seen that significant efforts will be required for the creation of new jobs, especially taking into account the fact that under the conditions of the contemporary scientific-technical revolution the cost of a new job is increasing considerably.

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[4] Some clarification is necessary in respect to the notion of employed population and working people. In 1978, for example, the difference between employed population and working people was 3,333,700, that is, 10,290,000 minus 6,956,300. This difference covers cooperative farm peasants, artisans in cooperatives, peasants with individual farms, and artisans not in cooperatives.

At the same time, as a result of the accelerated process of modernization of the national economy there has also been a professional mobility of the population of unusual scope, a mobility to which educational strategy has made an essential contribution.

The positive trends which have been noted up to now in the evolution of the employed population, in its structure, and in the technical endowment of labor will be continued with even greater firmness during the 1981-1985 Five-Year Plan and in the decade 1981-1990, a decade which has been quite properly called the "decade of science, technology, quality and efficiency."

Let us discuss several characteristic aspects mentioned in the documents of the Twelfth Party Congress. The increase in the number of employed population, the number of working people, the number of new jobs, and also the changes in the structure of the employed population called for in the 1981-1985 Five-Year Plan will be accompanied by changes in the territorial distribution of the employed population and in the distribution of this population by branches of the national economy as a result of the strategy of economy development. Among other things, it is planned to place units of smaller size, especially units from the branches of the processing industry, in less developed zones and localities so as to achieve a more rational distribution of jobs throughout the territory. Emphasis will also be given to development of small industry and artisans. There will be an expansion and diversification of the provision of services so as to achieve wide-scale utilization of local raw materials and utilization of the labor force. In respect to the growth of production in the cities and municipalities with developed industries, this is to be achieved primarily by increasing labor productivity on the basis of mechanization and automation of fabrication processes. Taking all these objectives together, great importance is attached to increasing the degree of employment of the population not only throughout the nation--from 46.4 percent (1980) to 48.1 percent (1985)--but also by county. The number of people employed per 1,000 inhabitants[5] in 1985 will vary by county between 409 (in Salaj county) and 564 (in Brasov county), with the gap between the most developed and urbanized counties and the least developed counties being greatly reduced. In this way, important progress will be achieved in the process of social and economic homogenization.

Among the qualitative aspects, I must mention the measures concerning the increase in educational levels and professional skills. During the 1981-1985 Five-Year Plan, development and modernization of education at all levels will be continued, with the school population at the end of the Five-Year Plan representing about 27 percent of the total population. The entire generation of graduates of the eighth grade will be included within stage I of the secondary schools, thus ensuring that about 90 percent of the students in stage I will be included in the industrial and agro-industrial secondary schools. The degree of inclusion in the second stage of the secondary schools will increase to about 70 percent, thus creating conditions for preparation for generalization of secondary school education. Another measure of great importance is that of professional education. Special attention will be given to training skilled workers in the basic trades involved in machine building, the metallurgical industry, mining, petroleum, the chemical industry, construction materials and construction-assembly, as well as in trades specific to agriculture. In addition to these measures, there is a program for retraining of workers, a program which annually will include over 2 million people.

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[5] The indicator is the same as the proportion of population employed in total population, with the difference being that it is expressed per 1,000 inhabitants.

The educational background of the employed population will increase significantly. The proportion of skilled people in the total working people will increase from 82 percent in 1980 to 86 percent in 1985, and the proportion of skilled workers from 85 percent to about 90 percent. There will also be an increase in the importance of women in the employed population and in the number of working people. While in 1978 women represented only 36.2 percent of the working people, at the end of the next Five-Year Plan they will represent about 40 percent.

Among the qualitative changes of broad political and social significance is a numerical increase in the working class and its proportion in the employed population and the population of the nation. While workers represented only 72.2 percent of the working people in 1965, in 1978 this proportion had increased to about 78 percent. There will continue to be an increase in the role of the working class, an increase which fully affirms its capabilities as the managing class of socialist Romania and its capacity to organize the modern economy of our nation.

While the changes which will accompany the numerical growth of the population employed (most of which will be qualitative in nature) will take place while there is strong economic development, no less significant is the increase in standard of living and the welfare of all the people that is planned during the next Five-Year Plan. The future outlined in the documents of the Twelfth Party Congress is guaranteed by the reelection of comrade Nicolae Ceausescu to the high position of secretary general of the party and by the assurance of the presence of and the unanimous decision of the people to achieve fully the objectives established by the Congress.

6010
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SOCIOECONOMIC IMPROVEMENTS IN RURAL SECTOR TRACED

Bucharest REVISTA ECONOMICA in Romanian No 52, 28 Dec 79 pp 8-10

/Article by Dr Maria Stanescu and Constantin Ciutacu: "The Romanian Village on the Path of Civilization"/

/Text/ Perhaps a great many analysts would consider it hazardous to compare a period of only 30 years since the process of socialist reform of agriculture and the village began with a previous period of several centuries. But the evolution and decisive progress of the Romanian state require us to make this comparison both in the statistical indices and especially in the specific facts. The RCP has proved to be the only political force capable of overcoming all the difficulties or intensively mobilizing the masses to accomplish all the set goals. In judging the role played by the peasants in particular throughout our history, the party tried and succeeded in enhancing this role in accomplishing the socialist revolution. As the RCP Program points out, "For a long time, over the millennia of the Romanian people's existence, the peasantry has been the most important social force for progress."

A Leap in History

Despite their essential contribution over the centuries to Romania's economic and social-political progress, the leading bourgeois-landowner classes dealt the Romanian peasants and villages a sad fate. In 1930, 48 percent of the rural population was illiterate and 73 percent of the rural dwellings (in 1938) had only one or two rooms, 71 percent were of adobe with dirt floors, and 27 percent were roofed with thatch and reeds. Physicians were rare in rural areas, and the average longevity was only 40 years in 1932. Agriculture had only 4,000 tractors in 1939, or one per 2,500 hectares, 37 percent of the farms had not even one draft animal, and only 50 percent of the peasant farms had plows, some of which were wooden, to say nothing of the fact that there were 900,000 peasant families in 1930 with no agricultural land of any kind. In 1949 the situation was nearly the same and even worse in some cases because of the losses caused by the war, the years of drought etc.

From this situation and its underlying causes, the RCP proceeded to solve the agrarian problem and to revolutionize the state's socioeconomic structures, leading to the rise of the Romanian peasants and villages to the highest levels of welfare and civilization. Aside from other basic processes (socialist industrialization), the only possible scientific way of making radical changes in the lives of the peasants and the entire people proved to be socialist reform of agriculture, a process that was intended for and produced a characteristically Romanian model of rural socialist society.

The good results of the party's agrarian policy did not take long to appear. First the technical-material base of all agriculture was intensively consolidated. In 1978 nearly 139,000 tractors and over 31,700 automotive combines were in operation in agriculture, over 1.1 million tons of chemical fertilizers were used, there were over 2 million hectares of irrigated land, and the fixed assets of agriculture were about 4.3 times greater than in 1950. There were over 41,000 agricultural specialists, including nearly 22,000 with higher education. Thanks to this investment and equipment effort, agriculture has been increasingly meeting the needs of the public for foodstuffs as well as those of the processing industry and creating surpluses for export. The output of bread grains increased from about 8.9 million tons in 1938 to nearly 19 million tons in 1978, the number of cattle was doubled, that of hogs was increased by over 4 times, that of laying poultry by over 3 times, etc. The per capita production of bread grains increased from 315 kg in 1950 to 868 kg in 1978, while in the same period per capita production of meat increased by 2.8 times, that of eggs by more than 4.5 times, and that of milk was nearly doubled.

All this progress made by 1978, with an agricultural population reduced to less than half the 1950 figure, is due to the great progress made in the extent and quality of agriculture's technical-material base and in the standard of instruction and qualification of the peasants. The steady growth of the agricultural output was also reflected in the considerable increase in working peasants' incomes. In the period following the conclusion of cooperativization, the evolution of cooperative members' incomes surpasses that of the compensation of working personnel (Table 1).

Like the incomes from work and from private farms, cooperative farmers' pensions also showed substantial gains, with an evolution more pronounced than that of the pensions of the other categories of workers (Table 2). Cooperative members' pensions have increased by 20 percent more since 1 July 1977, and for the first time in our state's history the farmers in the uncooperativized areas are also benefiting by pensions.

The growth of the incomes of all categories of workers and village dwellers lead to a steady gain in the volume of sales of goods and services in the rural areas (Table 3).

Aside from the fact that the rural population also does much shopping in cities, these figures analyzed as such (without allowing for the fact that the rural population has decreased and will continue to do so in the future) show rapid and structurally superior progress of rural consumption of goods and services and so also of the farmers' living standard.

	1960	1965	1970	1976	1980
Cooperative farmers average income	100	122	142	244	344
		100	116	201	283
			100	172	243
Average compensation of personnel in the national economy	100	131	163	212	279
		100	129	163	218
			100	126	176

Table 1. Evolution of Cooperative Farmers' Average Income Per Employed Person Compared with Evolution of Average Compensation of Personnel in National Economy in 1960-1980 in %*

*"Economy of Socialist Romania" in "Works of President Nicolae Ceausescu," Bucharest, Political Publishing House, 1978, p 282

	1960	1965	1970	1976
Pensions of agricultural cooperative members (UNCAP)	-	-	100	246.8
Pensions of workers in the national economy	100	103.8	143.7	170.3
Pensions of artisan cooperative members	100	...	130.4	162.7

Table 2. Evolution of Cooperative Farmers Average Pension Compared with That of Workers in Other Socioeconomic Sectors in 1970-1976 in %

	1965	1970	1975	1980
Total volumes of sales of goods, including:	159.8	200.4	268.2	391.8
- Sales of foodstuffs	184.5	230.8	275.6	390.1
- Sales via public catering	208.8	306.9	479.0	744.3
- Sales of nonalimentary goods	139.7	168.2	227.0	335.5
- Services	100.0	322.4	651.9	1,337.5

Table 3. Evolution of Sales of Goods and Services in Rural Areas in 1960-1975 and Forecasts for 1980 (1960=100.0)

The volume of rural sales of some nonalimentary products (over the same period) increased much faster: by 50 times for TV sets, by 4.5 times for radio sets, by 18.3 times for washing machines, by 5.2 times for stoves /masinile de gatit/ by 10 times for refrigerators, etc.

The municipal appearance of the Romanian village was also radically changed. Besides the transport networks and asphalt highways, hundreds of thousands of new and modern dwellings of the urban type have appeared. Over half (52 percent) of the total number of dwellings built in Romania in 1971-1975 are in the rural areas. In the last two five-year plans alone 450,000 rural dwellings were built, and 300,000 more will be built in the current five-year plan. In addition to the steady growth of household equipment resulting from the incomes from work, a number of social capacities have been constructed in the villages and over 12,000 schools and 1,000 maternity homes are now in operation there. Over 7,700 physicians, 25,000 intermediate health personnel, 92,490 teachers etc. are working today in the rural areas.

Consistent implementation of the RCP's policy of rural electrification throughout Romania has played a predominant part in improving the peasants' living and working conditions, in technical equipment of production, in facilitating labor, in making rural housing more comfortable, in making industrial products and cultural services available to the rural population and, in short, in radically changing the face of the Romanian village.

Rural electrification has been a major and regular objective of the policy of raising the agricultural output and the standard of civilization in the rural communities of Romania. In 1965-1978 the number of electrified villages was doubled, increasing from 6,506 to 12,136. While in 1970 electric power reached 80.5 percent of the rural communities and was used in 48.4 percent of the households in the lectrified villages, in 1978 these figures came to 92.5 and 74.2 percent respectively. In more than half the counties the proportions of electrified villages and of households using electric power are above the national average.

Overall Rural Development As a Long-Range Concept

Exceptional credit is due RCP Secretary General Nicolae Ceausescu for the great progress of the Romanian village, which has been intensively accelerated since 1965. With his foresight he fully understood the position and role of agriculture in the uniform whole of economic development and a broad approach to the complex problems of the village.

This new concept was first implemented by increasing the investments in agriculture. They amounted to nearly 200 billion lei in 1966-1978, or 3.6 times more than in the first three five-year plans, reducing the gap between investments per employed person in industry and agriculture from 10.4 times in 1960 to only 4 times in 1975.

For the first time in Romania's history a law was passed systematizing all urban and rural communities according to a uniform design equating the two kinds of settlements. As Nicolae Ceausescu pointed out at the National Party Conference in 1972, "Construction of the fully developed socialist society and the gradual transition to communism require equalizing urban and rural living standards. In systematizing the villages and communes this policy must be pursued by organized, purposeful efforts to build strong, prosperous rural centers, true agricultural cities wherein all the inhabitants can fully enjoy the benefits of socialism."

Systematization had become an objective necessity of renovating our villages because over 60 percent of the rural communities had less than 1,000 inhabitants, 30 percent had even less than 500, and many communities were stretched out in a line or scattered, occupying large agricultural areas. The dispersion of the houses and the paucity of inhabitants restricted the development of agriculture and of strong communities. A number of small villages are to be discontinued through urban or local attraction. It is estimated that 1,220 of the existing communes have outstanding possibilities for development and 400 of them are to become urban centers by 1990, serving 4-5 neighboring communes at distances of 15-20 km. Accordingly there will be about 9,811 villages in 1990 compared with 13,149 in 1975. In this five-year plan 120 communes will become urban centers, and 140 others will in 1981-1985. By 1976 over 200 villages had water supply networks, 51 had sewerage, and over 300 were connected to the gas distribution network. A total volume of investments amounting to about 25 billion lei (out of state funds and those of cooperative organizations and out of the public's contributions in cash and in labor) has been allocated to the 120 communes that will become agroindustrial cities in the current five-year plan. This sum will be used to build 150 industrial capacities, 70 agrozootechnical capacities, 600 classrooms, hospital facilities with 900 beds, 8,000 accommodations in kindergartens, 6,000 accommodations in creches, and about 32,000 apartments.

Due to the demographic nature of our villages, where the birth rate is higher than the urban one, accelerated construction of kindergartens is fully justified. A number of processes going on in our society (urbanization, industrialization, geographic and social mobility, expanded education and women's extensive access to socioeconomic activity) call for further efforts to relieve rural women of some domestic activities.

The rural population will be reduced by both direct and indirect means, but in 1990 it will still amount to at least 6-8 million inhabitants. Our party has taken steps to raise the village to the urban level, not by means of "migrations" but by developing some strong, systematized communes with a substructure and conveniences as close as possible to the urban ones.

The quantitative and qualitative changes that have taken place in agricultural production, in its standards of technical equipment and organization, and in the level of training and instruction of the rural population have brought about intensive processes of social leveling of the Romanian village and of our whole society at the same time. These processes, extremely far-reaching and important to construction of our fully developed socialist society and our advance toward communism, are being effectively implemented by improving and developing the socioeconomic conditions of the village. An essential part in this is played by investments and technical progress, the public's means of livelihood, development of education and culture, intensified economic and political democracy, etc. These measures are intended to gradually eliminate the differences between industrial and agricultural labor. (Among other things it is a matter of equalizing the levels of productivity as a means of equalizing the incomes: In 1970 the average growth rate of labor productivity in agriculture overtook that in industry, reducing the gap in productivity between the two sectors from 10:1 in 1970 to 6:1 in 1978, and a gap of only 3-4:1 is planned for 1985.)

The far-reaching process of socioeconomic leveling, according to our party's and Nicolae Ceausescu's conception of it, calls for radical technical, organizational, demographic, economic and cultural changes that constitute one of the main requirements for social unity.

The innovations that have been made and are to be made in the future on behalf of the Romanian state's progress objectively require essential changes in the organizational structure of agriculture. The RCP Secretary General has repeatedly said that the two forms of ownership in our socialist agriculture should not conflict and there should be regular collaboration and mutual aid between them. The State and Cooperative Unified Agroindustrial Councils are the organizational form for bringing about this unity. These bodies will supplement and reinforce the efforts that have been and will be made for development of agricultural production and rural industries and for uniform systematization of both the communities and the agricultural land.

It clearly follows from our president's thinking that the unified councils are to play "an important part in equalizing the two main sectors of agriculture, in raising the general standard of agriculture, in gradually equating the city and village, in raising the general level of civilization of our villages, and in intensifying their development."

The unified councils have important tasks for concentration and specialization of agricultural production, for efficient use of the land reserve and material, financial and manpower resources, and for the economic consolidation of every component unit. They are also becoming an effective integrating factor in agricultural activity, industrial activity in rural areas, and practically all activities within their scope, providing a uniform, correlated framework for processing agricultural raw materials, installing small industries in villages, and developing the role of zootechnical enterprises of the industrial type.

The work of these councils is correlated with the provisions of the First Program-Directive for Romania's Regional Socioeconomic Development, recently ratified by the 12th Party Congress.

The qualitative and quantitative changes planned for agriculture will lend new dimensions to agricultural production and the rural workers' and dwellers' quality of life. As Nicolae Ceausescu said in the Report to the 12th Party Congress, "A radical agrarian revolution comprising both the technical-material base and the organization of production is an essential aim of the next five-year plan."

In the next five-year plan development of agricultural production is based on heavy investments (155 billion lei) in increasing quantities of the most effective material factors (mechanization, chemical fertilizers, irrigation projects etc.) in agricultural production. Development of a modern and intensive agriculture is one of the major priorities of 1981-1985, and the very development of industry and of the whole national economy and consequently the people's greater welfare depend upon it.

This better interpretation of agriculture's role in the national economy requires a better perception of the standards of labor and results in this sector on the part of all workers in agricultural production, research and education. Our agriculture can and must make an essential contribution to the transformation of Romania into a country with an average level of economic development in future years.

The unified agroindustrial councils will act on behalf of rational use of the land reserve, completion of crop zoning and determination of crop rotations, mechanization and chemization of production, full modernization of orchards and vineyards, increased numbers of livestock, and radical resolution of the fodders problem.

Use of more tractors, combines and other agricultural machines and application of about 320 kg of active fertilizer ingredient per hectare of arable land, vineyards and orchards will require a greater investment of material outlays. In order to maintain the net output and effectiveness of agricultural activity it is still necessary as ever to considerably increase the average yields per hectare and per head of livestock as essential qualitative features. The annual agricultural output will be up 5.4-6 percent, meaning that the level of the current five-year plan will be exceeded by 30 percent, but the cost at which this production increase will be obtained must be considered. To obtain an output of 27-28 million tons* by 1985, the work will be better organized, with some features of organization of the industrial type, so that sowing will take no more than 15 days, the wheat harvest will be finished in 8 days and the corn harvest in 25-30 days at the longest. This organizational effort will be particularly necessary because the agricultural population will drop to only 22 percent of the nation's employed population by 1985.

The farmers' full participation in the accomplishment of these ends is the guarantee that in the next five-year plan agricultural production will contribute even more to the welfare of the farmers and of the Romanian village in all its aspects.

Obtaining the planned outputs will be the only way to provide for the increase of the farmers' nominal and real incomes, the growth and continuing modernization of consumption, and the social-municipal improvement of the villages, marking a new stage in the process of gradual reduction of the differences that still exist between city and village.

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*Of bread grains.

FEATURES OF HOUSING CONSTRUCTION PROGRAM EXAMINED

Bucharest REVISTA ECONOMICA in Romanian No 48, 30 Nov 79 pp 16-18

[Article by Dr Mircea Enache: "Significant Progress in the Field of Housing Construction"]

[Text] The directions of social-economic development in Romania during the next Five-Year Plan period, directions which were masterfully presented by the secretary general of the party, comrade Nicolae Ceausescu, in the report presented to the Twelfth Congress, mark a new and qualitatively superior stage in the line of uninterrupted progress of the socialist fatherland. A supreme guarantee of the realization of historically significant objectives contained in the program documents approved by the Twelfth Congress, the reelection of comrade Nicolae Ceausescu to the high position of secretary general of the party by unanimous wish of the entire party and people is, at the same time, the guarantee for a new and splendid achievement--the consistent advance of the nation on the road toward construction of a multilaterally developed socialist society and the road toward communism.

Among the great problems involved in the social-economic development of the nation, the party gives special place to housing construction. The multiple aspects of the broad program for systemization of the territory and urban and rural locations and for acceleration of the rate of construction of housing during the next Five-Year Plan period find expression both in the directives of the Twelfth Party congress and in the program directive which foreshadows the general lines of Romania's social-economic development. Housing construction occupies second place in importance in respect to the volume of investments allocated, with the magnitude of the funds destined for this sector during the next Five-Year Plan period following closely after the great efforts in the field of industrial investments. Consideration must also be given to the higher starting point: investments in respect to housing construction for 1980 have been increased to about 26 billion lei, a level which is 36.9 times greater than the value of all investments for housing in 1950. This is a significant proof of the importance which our party and state accord to this significant component of the standard of living. In the following, I shall refer to some of the essential aspects of housing construction in the next Five-Year Plan period, a problem which is a part of the broad framework of the complex process of systemization of the territory.

Achievements in Reducing Differences Between Village and City

The problem of fully satisfying the quantitative and qualitative housing requirements of the population must be put within the broader framework of the goals set in the field of systemization of the territory and the localities. The first stage of the national program for systemization was completed in 1977, under the leadership and direct guidance of comrade Nicolae Ceausescu. Within the framework of this stage, the coordinates were developed, through systemization plans, for long-range development of all localities up to the year 1980, with locations decided upon for economic and social-cultural facilities, housing, and technical-municipal buildings of the present Five-Year Plan period.

Through the systemization plans approved, they also established the social-economic profile of each locality and harmonious development of these localities in correlation with the neighboring territory and with the system of the existing locality network, attempting also in this way to create equal living conditions for all citizens of the nation, in the spirit of the principles of socialist ethics and justice, and to achieve a gradual reduction of the essential differences between city and village by raising the village to the level of development, outfitting and technical-municipal endowment of the city. The fact is also significant that by the end of next year there will be at least 6-7 cities within each county and these cities will be distributed judiciously within the territory so that the services and equipments of these cities can be used by the greatest possible number of citizens in the neighboring communes up to a distance of 10-15 kilometers.

At the same time, notice should also be taken of the preliminary steps implemented for construction of at least 900,000 apartments units during this Five-Year Plan period, with the difference of up to 1,000,000 apartments--the level called for in the supplementary program--being assured through work under way so that these apartments can be put into operation at the beginning of the next Five-Year Plan period. In developing the details for systemization of the housing zones, while increasing the criticality exercised in relation to the quality of solutions and the use of the terrain, they are also applying the guidance concerning the amalgamation of buildings, better grouping of buildings, reduction of the distances between buildings, concommitant with reduction of the heights and fronts of builidngs, and the use of types of buildings with specific architectures. All of this is designed to ensure better utilization of terrain and to improve the architectural aesthetics of the localities, the living conditions, the use of cultural-commercial utilities, etc.

Systemization of the Territory--A General Framework for Increasing the Degree of Civilization

The 1981-1985 Five-Year Plan will mark a new and important stage in realization of the provisions of the party's program for balanced social-economic development of the nation's countries and the systemization of all localities. During the next Five-Year Plan period, the provisions of the "National Program for Systemization of the Territory and Urban and Rural Localities" will continue to be implemented. In this respect, an attempt will be made to keep the large cities, including Bucharest, at approximately the same number of inhabitants as at present, with the smaller cities being developed so as to create a system of cities and urban centers which are evenly distributed throughout the entire territory. Compared with the situation prior to the territorial administrative reorganization in 1963, the system of urban localities in 1985 will be greatly changed in this respect (see Tables No 1 and 2).

Table No 1. Evolution of the Number of Cities and Urban Population in the Next Five-Year Plan Period

	1965	1975	1980	1985
Number of cities	184	236	265	505
Urban population (in millions of people)	6.4	9.2	11.7	12.9
Proportion of urban population in total population (in percent)	33.7	43.2	52.2	54.5

As can be seen from the data in Tables 1 and 2, there are to be changes in respect to the grouping of cities according to the number of inhabitants, with special emphasis being placed on increasing the number of cities with a population below 20,000 inhabitants. The program directive for social-economic development of Romania in territorial profile in the period 1981-1985 also provides that by the end of the next Five-Year Plan period there will be at least nine urban centers within each county. This will provide a balanced distribution of urban centers throughout the entire territory of the nation. It will further provide an intensification of contacts between city and village, with each city having an average of four to six communes surrounding it within a radius of 15-20 kilometers.

Table No 2. Grouping of Cities by Population

	Number of Cities	
	1980	1985
Small cities, below 20,000 inhabitants	269	393
Medium-size cities, between 20,000 and 100,000 inhabitants	77	90
Large cities, over 100,000 inhabitants	19	22

During the next Five-Year Plan period, it is planned to transform an additional 140 communal centers into agricultural-industrial cities. This will lead to an increase in the proportion of population in the urban area to about 55 percent. The cities and communes of our country will be transformed into powerful territorial units capable of offering increasingly better living and working conditions for all citizens and will ensure that these citizens participate on an increasingly more intensive basis in public life, in resolving the social and economic problems of the localities in which they live, and in managing all society. The accomplishment of all these provisions will accelerate even more the process for bringing about the disappearance of the essential differences between village and city, between agricultural activity and industrial activity, and will result in an increasing homogenization of our society and the creation of a lasting foundation for full affirmation of equality for all citizens of the nation, without regard for nationality, and for continued growth of material and cultural welfare and the general degree of civilization of our entire people.

Prospects for Solving the Housing Problem in Our Country

During the years of socialist construction, as a result of the rapid development of all branches of the national economy the material base necessary for continued growth of the standard of living of all workers was created. The rate of housing construction in our country has been and is one of the highest in the world, thus assuring continued improvement in the living conditions of the population and the modernization and flowering of the nation's localities. During the 1966-1970 Five-Year Plan, 333,000 apartments were built, and during the 1971-1975 Five-Year Plan 510,000 apartments were built. As pointed out above, during the present Five-Year Plan about 900,000 apartments will be built using state funds. At present, over 15 million citizens in the cities and villages live in homes built during the last 30 years. There has been an appreciable increase in the proportion of apartments with multiple rooms, as well as an appreciable increase in the average space per person. The finishing and the interior equipping of the housing have also been improved.

The draft program directive for increasing the standard of living calls for the construction during the 1981-1985 Five-Year Plan period of 1,100,000 apartments from state investment funds. Of this number, 450,000 are to be sold to the public, compared with 380,000 apartments sold to the public in the 1976-1980 Five-Year Plan period. The state will assist the public in constructing about 100,000 homes using their own funds. Additionally, a large portion of the homes which are to be built--about 1,000,000 apartments--are to be constructed in municipalities and cities, as well as in the workers' centers where the housing requirements are relatively great. The average number of rooms per apartment in state housing is to be 2.52. The living situation will also be improved by an increase in the average liveable space per inhabitant, for example, in the urban area from 9.7 square meters in 1980 to 10.6 square meters in 1985, as well as through a decrease in the number of people per room from 1.41 in 1980 to 1.29 in 1985. As pointed out by comrade Nicolae Ceausescu, the secretary general of the party, in the report presented to the Twelfth Congress, under the conditions of the extensive program for housing construction "In 1985, the housing problem in Bucharest will be solved in general terms and satisfactory housing conditions will also be ensured for the entire population of the capital." The housing conditions of the population in the entire country will also be improved.

This estimate of the secretary general of the party is based on the clearest realities. Correlating the general provisions for long-term housing construction with the growth of population and the number of households and taking into consideration the programs for social-economic development of the nation and the localities, the increase in the proportion of urban population, and the increase in the population active in industry, it can be seen that it will be possible by the end of 1985 for the total number of apartments to be close to the total number of households, and in 1990 to be several percentage points greater. This will ensure that each family is housed in an apartment and will make it possible to move families into apartments which correspond to the size of the household and, on a temporary basis, to evacuate some homes for the purpose of modernizing them. Through realization of the provisions of the national housing program, it will be possible in 1985 for about 70 percent of the population to live in apartments which were newly constructed after 1945, and in 1990 this percentage will increase to more than 90 percent.

The total number of new apartments is distributed by county as a function of the situation in respect to existing housing, growth in the population and the number of households, the size of households, correlated with the social and economic development of the counties and localities, with an attempt being made to solve the housing problem in a balanced manner for all counties and categories of localities. The general process of urbanization necessitates a reduction in commuting and harmonious development of all zones and localities of the nation. This means that housing construction will have to be carried out in small and medium-size localities, as well as in the suburban localities, at the same time reducing the proportion of houses built in the county capital cities.

An improvement is scheduled in living conditions for the total diversity of familiar situations. For example, to provide housing for families with more than seven members, which in 1966 represented 2 percent of the total number of families, beginning in 1981 it is planned to start construction on a certain number of apartments with six rooms. Under these conditions, it is estimated that the number of persons per room will drop from 1.54 in 1976 to about 1.2 in 1990, while the liveable space will increase correspondingly during the same period from 8.8 square meters to about

12 square meters. By decreasing the living density per apartment, increased comfort will be achieved both through increasing the size of the apartments and the number of rooms, as well as through improvement in finishing and the provision of supplementary equipments.

Science and Technology Fundamentally Implied

Realization of the housing programs in the 1981-1990 period leads to an increase in the annual volume of construction and assembly work in the construction enterprises of the people's councils that is more than two times greater in 1990 than in 1975. This considerable increase implicitly raises the necessity for development of the degree of industrialization and prefabrication from 50 percent in 1980 to about 90 percent in 1990 through increasing the proportion of fully prefabricated constructions (large panels and space cells) from 30 percent in 1975 to about 80 percent in 1990, through perfection of construction systems, and through increasing labor productivity per construction site by more than two times during the same period, with a corresponding decrease in the consumption of manual work per square meter constructed. Realization of this volume of prefabricated construction and achievement of an increase in the degree of mechanization of construction site work can only be accomplished by significant development of the production bases for construction and provision of equipment for them. It is planned to provide the construction sites with the necessary construction materials and equipments, both of which will have an advanced degree of prefabrication and finishing in the factories.

All these aspects require an intensification in research activities in the field of constructions and architecture. As pointed out in the program directive for scientific research, technological development, and introduction of technical progress in the period 1981-1990, research activity in constructions will be oriented toward development of industrialization of tasks, adoption of efficient construction solutions which will ensure reduction of energy-intensive materials consumption, expansion of utilization of solar energy in heating and sewage installations in buildings, and so forth. In housing construction, it is planned to develop solutions for expanding the use of construction systems utilizing large panels and finished space cells, improving the functionality of the buildings, and providing better heat insulation.

Research in the field of the construction material industry must lead to realization of materials with lower energy consumptions, to diversification of prefabricated products production so as to accelerate the process of industrialization of construction works, and to maximum utilization of wood materials. An attempt will be made to assimilate construction materials and elements with a high degree of outfitting and finishing and to create technologies for utilization of natural and secondary resources--

natural stone, volcanic tuff, blast furnace slag, thermoelectric power plant ashes and mine waste--in the fabrication of masonry and insulation materials. It is also planned to develop improved technologies for production of insulating materials and the doors and windows of buildings so as to increase the degree of thermal insulation of buildings.

Reduction of energy consumptions in occupied homes in obviously a goal of special importance in the next decade. The program directive for research and development in the field of energy for the period 1981-1990 emphasizes the necessity for intensification of research for development of new insulating materials and construction technologies and for new types of heating installations and new types of apparatus for contouring and controlling temperatures in heated spaces. There is also a need to study new architectural and construction solutions for maximum utilization of buildings and natural light. In the housing construction sites, they will have to act to reduce the consumption of fuels, achieve intensive exploitation of equipments, and eliminate the consumption of fuel for heating, spacing work out over the course of the year so as to permit the greatest possible use of warmer weather times. In connection with energy consumption, it is also necessary to study the real fuel and energy requirements for heating buildings, for providing drinking water, preparing food, lighting, and so forth, as well as determining optimum consumption standards.

The use of new materials and light and efficient elements in construction, as well as the adoption of light prefabricated products, can permit improvement of construction solutions and development of lighter constructions, with consequent reductions in the specific consumption of concrete steel amounting to 10-15 percent and of cement by about 5 percent, which is translated into major savings in concrete steel and cement during the next Five-Year Plan period.

A task of major importance facing architects and construction workers in the stage to come is that of diversification of housing construction. The program directive for social-economic development of Romania in territorial profile sets the task for the county people's councils of taking steps to ensure that in the small cities the citizens build housing with 2-3 floors, and in certain streets, in raport with the details of systemization, also build housing with up to five floors. In the communes, the citizens will be urged to build housing in accordance with standardized plans, adapted to the local method of living and specific characteristics. Without the development of a specific characteristic in housing districts, it will be impossible to achieve a real social integration of the inhabitants of that district. It is for this reason that one of the tasks of research in the field of architecture is the avoidance of uniformity and the realization of housing districts with specific characteristics, under the conditions of utilization of high-productivity construction techniques. As the secretary general of the party pointed out, "While intensely promoting the practice of developing standardized building plans, at the same time we must combat the mentality that standardization of building plans and the introduction of modern, industrial methods in constructions must fatally lead to monotony and uniformity."

There are just a few of the coordinated of the program for long-range housing construction. Realization of this program will mean great and decisive progress by the party in solving the housing problem in our country. The significant achievements in housing construction and in assuring each family a satisfactory home, as well as the bright prospects opened up in this framework, show once more that everything that is accomplished in socialist Romania is for the benefit of man and for the growth of his material and spiritual welfare.

6010
CSO: 2700

REVALUATION OF LEU IN FOREIGN CURRENCY EXCHANGE

[Editorial Report] Currency Exchange Rate Table No 2, issued by the National Bank of the Socialist Republic of Romania and published in Bucharest ROMANIA LIBERA in Romanian of 18 February 1980, p 4, reveals a devaluation of the Romanian leu in respect to the currencies of a number of countries, as compared with the rates of exchange published in Table No 1 in ROMANIA LIBERA of 5 January 1980, p 4. In respect to the currencies of five countries--Switzerland, Israel, Yugoslavia, Japan and Turkey--the leu has increased in value. The following are the changed rates, with the old rates in parentheses:

		Exchange in leu	
Country	Monetary unit	Official rate	Rate for non-commercial operations
England	1 pound sterling	10.25 (9.83)	27.52 (26.39)
Canada	1 dollar	3.86 (3.78)	10.36 (10.15)
Switzerland	100 francs	277.47(278.11)	744.90 (746.61)
West Germany	100 marks	261.17(256.05)	701.14 (687.39)
India	100 rupees	56.47 (56.01)	151.60 (150.36)
Israel	100 pounds	12.21 (14.21)	32.78 (38.15)
Yugoslavia	100 dinars	22.58 (23.30)	60.62 (62.55)
Japan	100 yen	1.86 (1.88)	4.99 (5.05)
Norway	100 kroner	91.28 (89.37)	245.05 (239.92)
Portugal	100 escudos	9.41 (8.91)	25.26 (23.92)
Turkey	100 lira	6.39 (9.49)	17.15 (25.48)

CSO: 2700

DECREE, REGULATION ON EXTRACTION OF GOLD FROM SANDS

Bucharest SCINTEIA TINERETULUI in Romanian 27 Feb 80 p 2

[Decree of the State Council of the RSR, issued 27 February: 'Decree on the Extraction and Sale of Gold from Alluvial Sands']

[Text] The State Council of the RSR decrees:

Article 1-The extraction, reclaiming and sale of gold from alluvial sands is hereby authorized for persons not part of the regular work force, by pensioners and by family members, all of whom are henceforth designated as authorized persons under the conditions of this decree.

Article 2-Pensioners retired due to old age, invalidism and war injuries and invalid pensioners of categories I and II are authorized to conduct the activity of extraction, reclamation and sale of gold from alluvial fields with the right to appropriate remuneration in accordance with the provisions of this decree without loss of pension, including supplimentary pension.

Article 3-The quantities of gold and silver present in the mining products will be determined on the basis of laboratory testing and will be surrendered by the authorized persons to mining enterprises as identified by the Ministry of Mines, Petroleum and Geology every ten days or whenever necessary. Remuneration will occur at the rate of 150 lei per gram of fine gold and 7.50 lei per gram of fine silver.

The incomes gained by the persons authorized under the conditions of this decree are not taxable.

Article 4-Persons who discover new alluvial zones with gold and/or silver contents are required to inform the mining enterprises or the peoples councils of their existence.

Article 5-The extraction and reclamation of alluvial sands is exempted from the regulations concerning the utilization of water resources.

Article 6-The recipient mining enterprises are required to conduct all operations resulting from the activity of mining and metal processing using minimal expenditures and without exceeding the planned level of expenditures and are not authorized to hire supplimentary personnel.

Article 7-The Ministry of Mines, Petroleum and Geology will organize the activity of extraction and reclamation of gold from alluvial sands.

The Ministry of Mines, Petroleum and Geology, the Ministry of Finance and the National Bank of the RSR will present the results obtained and will propose appropriate measure after one year of experimental application of the provisions of this decree.

Article 7-The activity of extraction, reclamation and sale of gold from alluvial sands will be organized in accordance with the annexed regulation which is an integral part of this decree.

NICOLAE CEAUSESCU
President of the RSR

[Regulation on the Organization of the Activity of Extraction, Reclamation and Sale of Gold from Alluvial Sands]

I. General Provisions

1. The extraction, reclamation and sale of gold from alluvial sands in known gold bearing regions and in areas of valleys with gold bearing alluvial deposits throughout the country that do not meet the conditions necessary for industrial exploitation may be conducted by persons who individually or collectively obtain permits for seeking, extracting and selling gold under the conditions of this regulation.

2. Work permits are to be issued by the Baia de Aries Mining Enterprise for operations at Rosia Montana and Zlatna and by the Barza Mining Enterprise of the Deva Central for Mineral Ores which is responsible for organizing the exploitation activities of the gold bearing alluvial deposits in the region of the Apuseni Mountains through the intermediaryship of local artisan collectives. For the other alluvial zones with gold contents of interest the work permit will be issued by the executive committees of the district peoples councils or finance administrations at the request of those persons identified by the present decree. At the request of the executive committees, the Ministry of Mines, Petroleum and Geology will identify the nearest mining enterprises responsible for organizing the activity in their respective areas.

3. The designated authorized persons and artisans may work individually or in groups. However, the use of paid work time in any form is prohibited. The artisans are to extract the gold using rudimentary, simple means such as separating troughs, sieve boxes and others.

4. The authorized persons include old age pensioners, invalided and war injury pensioners, pensioners with category I and II invalidism, unemployed persons not part of the labor force and family members of employed persons (i.e., spouses, parents and children).

5. Those requesting permits can obtain them by addressing the mining enterprises identified in Item 2 or the local finance administrations depending on the situation. A standard form must be completed with the following information: full name of authorized requestor, age, address, names of family members who will assist, and the location where the work is to be conducted.

6. The collective management agencies of the mining enterprises or the finance administrations, according to the situation, will satisfy the permit requests within ten days of their receipt.

The issuance of a permit may be denied when the location requested has already been assigned to another person, if chemical analyses have indicated an absence of gold in the respective alluvia, as well as for other justifiable reasons.

The permit will delineate the area where the exploitation of alluvial sands is to be conducted and identify the duration of validity and the location of the turn in, storage and sales point for the mining products.

7. Permits are issued for the period of one year and cannot be ceded or transferred to other persons.

8. The location identified by the permit constitutes an exclusive right to seek and extract gold and silver from alluvial sands by the authorized person(s) for the time period established in the permit. An interruption of work without significant reason for a period of thirty days, except during the winter (November to April), will result in cancellation of the permit.

9. The peoples council responsible for the area in which the work is to take place will be informed of the authorization by the mining enterprise or the finance administration, depending on the situation.

10. A record of the permits issued will be maintained in a special register in which all data included in the permits will be listed.

11. A booklet will be issued together with the permit to the authorized person. The booklet will list the rights and obligations of the authorized person with regard to the mining enterprise and will include pages for recording the quantities of mining products obtained and data concerning the acquisition and surrender of the mining products as well as the amounts of remuneration awarded to the authorized person for the gold and silver submitted.

II. Extraction, Reclamation and Sale

12. The following alluvial zones are identified for exploitation:

a) For the Baia de Aries Mining Enterprise and its operations: The Abrudel Valley is Abrud up to its confluence with the Aries River; the Valea Bucium and Corna streams with their tributaries; the ore crusher and waste dump sites which are no longer in industrial operation.

b) For the Barza Mining Enterprise: the Crisul Alb River downstream from the processing plant.

13. The enterprises of the Ministry of Mines, Petroleum and Geology will make available through their geology specialists the necessary information stricted limited to the sepcific conditions of operation in the requested locations upon request by the authorized persons.

14. The authorized persons will extract sands from alluvial deposits for which they have received a permit using their own means.

The recipient mining enterprises are permitted to sell tools such as hoes, shovels, pickaxes, etc. to the authorized persons at retail prices. The enterprises are also permitted to manufacture and sell separating troughs, sieve boxes and buckets to and at the request of the authorized persons at the retail prices set by law.

15. The forms in which gold in mining products may be submitted to the recipient enterprises are the following:

a) Gold bearing pyrite with a minimum content of 12 grams gold per ton and 50 grams silver per ton;

b) Gold and silver amalgam.

III. Rights of Authorized Persons

17. The authorized persons possess, in principle, the following rights:

a) To extract alluvial sands from river beds for the purpose of reclaiming gold and silver;

b) To obtain the necessary information regarding the quality and quantity of alluvial deposits in the requested work site;

c) To purchase the necessary work tools;

d) To store the obtained mining products at the turn in, storage and sales points until their sale;

e) To relinquish the permit issued by notifying the enterprise at least 20 days in advance;

f) To receive remuneration for the quantities of gold and silver submitted to the recipient enterprise at the prices set by this decree.

IV. Obligations of Authorized Persons

18. The authorized persons have, in principle, the following obligations:

a) To work only within the boundaries of the alluvial site identified by the permit;

b) To begin work no more than 30 days after receipt of the permit;

c) To turn in all mining products obtained as well as the cloths from sieve boxes and other object that contain ores rich in gold to the designated turn in, storage and sales points;

d) To not remove any equipment, supplies or products from these points;

e) To maintain an accurate record in the booklet issued with the permit;

f) To inform the mining enterprise in writing of the identity of the legal representative in the case of a collective permit;

g) To abide by the provisions of this regulation as well as the regulation concerning the processing of gold bearing ores in effect at these enterprises.

V. Final Provisions

19. The mining enterprises will provide for the processing, reclamation and purchase of the gold submitted to them in the forms described in Item 16 and will keep separate records of the quantities of gold and silver that result from the processing of the mining products.

20. Remuneration for the gold and silver submitted will be made to the authorized persons at the turn in, storage and sales points.

21. Transporting of the gold and silver in the form of mining products is permitted only between work site, residence of the authorized person and the location of the recipien enterprise.

22. Permits can be revoked in the following situations:

a) Cessation of the operations of the enterprise that issued the permit;

b) Official abandonment of alluvial zones that no longer justify search and extraction efforts;

c) Noncompliance with the obligations established in this regulation.

23. The regulation concerning the transport of precious metals by mines and plants processing gold bearing ores is supplumented by the provisions of the present regulation.

8199
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MILK, MEAT PRODUCTION FIGURES TO 1985 GIVEN

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 7 Feb 80 p 5

[Article by Djura Djukic: "Reserves Over Level of Consumption Significant; Beef Is the Favorite, but Poultry Meat Is in Greatest Demand"]

[Text] Our country usually has a surplus of meat. For this reason the emphasis is being placed on exports because the potential exists for much greater production, as well as for a higher level of the consumption of meat. It should be emphasized that in spite of all the increases, domestic consumption is still not that high. A large surplus exists here.

The production of beef has had the most dynamic growth and the consumption of this type of meat has, relatively speaking, made the most progress. This was the intention of economic policy as in previous years pork has been the dominant form of meat in our country. Only recently has the predominance of pork been seriously threatened by beef and poultry.

One can get an idea of the goals of development for this area on the basis of a study of the relations between the projected production and consumption of meat and milk being compiled by specialists in connection with the preparation of the Social Plan to 1985. The average production of beef for the years 1969 and 1970 amounted to 254,000 tons, while consumption for this period was 170,500 tons. After 5 years, that is in 1974 and 1975, the ratio was 320,000 tons produced to 256,000 tons consumed, and for this year, 1980, production should be 375,000 tons compared to consumption of 320,000 tons. It is apparent, that although production grew quite noticeably, the difference between production and consumption was gradually reduced. The difference amounted to 50,000 tons on the side of production this year, and it should remain at this level for 1985 as well. By then, production should have increased to 450,000 tons and consumption should be 400,000 tons.

For the 15 year period starting with 1970, consumption of beef will have increased more than twofold (from 170,500 to 400,000 tons). It is worth mentioning that the growth in pork consumption during this same period, however significant, will not achieve a twofold increase (from 276,000 to 520,000 tons). But pork consumption will still be the dominant form, that is, it will be 120,000 tons greater than the consumption of beef.

In comparing these two main types of meat, one is struck by the fact that the level of production of beef predicted for the year 1985--450,000 tons--will be attained by 1980 for pork production. Moreover, the average production of pork for the years 1969 and 1970 amounted to 313,000 tons, while consumption was 276,000. For 1985 the production should amount to 525-550,000 tons and consumption should be 520,000 tons.

The Era of Poultry Meat

For the last 10 years we have witnessed the strong development of poultry production and consumption. Again looking at the years 1969 and 1970, the average production of poultry meat was 131,000 tons, and the consumption was 130,000 tons. This year, according to calculations, production and consumption will both be at 240,000 tons, and by 1985 the situation will be as follows: production- 300-350,000 tons; consumption- 325,000 tons. Thus, there are two possible variants for production.

Mutton has traditionally held the third position among the meats behind pork and beef, although for some time now poultry has taken over its place in consumption. The consumption of mutton has for the most part stagnated. No significant increase in the participation of this meat in the diet of the population is foreseen for the next planning period as well. Meanwhile, one should keep in mind the role of this meat for selling purposes in the foreign market. The possibility exists for the profitable sale of mutton in a number of countries.

The average production of mutton for the years 1969 and 1970 amounted to 51,500 tons and consumption was 48,500 tons. With modest increases the amounts will be 60,000 and 52,000 tons respectively for 1980, while for 1985 there are two variants predicted for production: 70,000 and 75,000 tons. Consumption will be 55,000 tons. At that time the greatest difference between production and consumption would be achieved--20,000 tons. This should be sold on the export market.

A Surplus of Milk

Milk is an important source of protein in the diet, and the growth in its production at the same time guarantees an increase in the production of beef. In 1969 and 1970 milk production averaged 2,655 million liters and consumption was 2,750 million liters (deficit). Conditions were improved with intensive measures and in the years 1974 and 1975 there was already a surplus: production was 3,600 million liters and consumption was 3,256 million liters. In 1980 production will climb to 4,350 million liters and consumption will be at 4,120. The project for 1985 is: production 5,360 million liters and consumption 5,160 million liters.

Eggs are also important in this group. Probably for this reason the production and consumption of eggs have up to now kept pace with each other. Thus in the 1969-70 period 2,660 million eggs were consumed, and in 1980, according to calculations, 4,150 million eggs will be needed and in 1985 the number will be 5,150 million.

As can be seen, growth is apparent in all areas. The possibilities for increased consumption are good. Especially significant is the fact that a dynamic growth in the production and consumption of beef is being planned; this is of exceptional importance for the development of agriculture as a whole and for the food industry. It will satisfy the increasing needs of the country and provide a surplus of beef which should bring in a favorable foreign exchange.

The consumption of poultry meat will continue its dynamic growth. The demand in the domestic market is great. With regard to the technological problems of poultry production, the plan should not meet with any difficulty here. More complex will be the realization of the planned production of beef and pork, especially of the former. If undesired cycles and crises can be prevented with synchronized measures of economic policy and with timely decisions in this area, we can expect a significant jump in dietary standards and better conditions in the agro-industrial complex for the next 5 years.

9548
CSO: 2800

MEAT, LIVESTOCK EXPORTS IN 1980 VIEWED

Belgrade PRIVREDNI PREGLED in Serbo-Croatian 13 Feb 80 p 11

[Text] According to a program drawn up by the Fund for the Advancement of Production and Sales of Livestock and Livestock Products, STOFO will sell about 120,000 tons of meat and processed meat products on the foreign market this year. The total value of this delivery will be $333 million, which will amount to the largest influx in foreign currency of this year's total food export. The planned export of agricultural and food products for 1980 should bring in between $800 million to $1 billion.

Recently an agreement was resumed concerning the export of young calf meat to Greece. A new price of $2,150 per ton was agreed upon between authorized agencies in that country and STOFO. The earlier price, which after autumn prevented the export of meat to Greece, was $1,990 per ton. By the end of August, 12,000 tons of young beef will be sent to the neighboring country.

Several weeks ago a trial delivery of a lesser quantity of young calf meat was begun also in the markets of Norway and Sweden; the number of buyers of livestock products and meat was thus increased to about 30. Among them the countries of the European Economic Community have been the most important buyers of livestock products from our country for years, and this year meat and refined meat products will be sold in the West European market for around $160 million.

The developing countries are assuming an increasingly important role among the buyers of livestock and livestock products from Yugoslavia. The value of this year's delivery to a group of around 10 countries, the majority of them Arab, is estimated to be around $40 million. The products most in demand are lamb, calf, poultry and canned meat.

Live young calves from our stables as well as calf meat are renowned in the foreign market. This year 26,000 tons of live calves will be delivered to buyers in foreign countries, as well as about 60,000 tons of calf meat, which will bring in around $200 million. With the export of 20,000 tons of processed pork approximately $67 million will be earned, and the export of horses will bring in $15 million.

With reduced beef production in countries and regions which are the most important producers (Argentina, Australia, and New Zealand), an imbalance between supply and demand of this type of meat has been predicted since the end of last year. This is, of course, to the benefit of our producers, especially since the quality of our meat is known to be high. Also encouraging is the fact that prices of corn and livestock have stabilized in our country in recent months, and with steadier prices on the domestic market, as the director of STOFO emphasizes, the competitive capability of Yugoslavia on the international market is certainly strengthened.

9548
CSO: 2800

BRIEFS

SLOVENIAN WORKERS ABROAD--There are 70,000 to 75,000 Slovenian workers temporarily working abroad, or about 9 percent of the total number employed in the republic; if family members are included, the number abroad amounts to 100,000, or about 5 percent of the population of Slovenia. In the last few years about 1,500 to 2,000 workers have returned annually from abroad, while between 700 and 400 [800?] workers have left to work abroad. At the same time Slovenia lacks workers for many trades and other work which is given to workers from other republics who now number over 100,000. [Excerpt] [Belgrade BORBA in Serbo-Croatian 20 Feb 80 p 3]

'ENERGOINVEST' IN KOSOVO--Delegates from "Energoinvest" [enterprise] in Sarajevo discussed with Kosovo officials and enterprise representatives on 22 February further cooperation between this enterprise and economic enterprises of Kosovo. Especially discussed was formation of an OOUR (basic organization of associated work) for machine building and an organization to produce large-capacity dredgers for use in surface mines. In order to master the production of mining and other equipment [in Kosovo], cooperation will also be established through linking "Energoinvest" as well as other organizations in Bosnia-Hercegovina with small-scale organizations in Kosovo. [Excerpt] [Belgrade BORBA in Serbo-Croatian 23 Feb 80 p 4]

KOSOVO TOURISM PLANS--Plans are more modest than those which were issued 5 years ago and which were not met. It has been agreed now that in the next 5 years accommodations for 4,000 overnight guests will be built, or an average of 800 per year. This is twice as much as that built in the last 5-year period. [Excerpt] [Belgrade BORBA in Serbo-Croatian 5 Mar 80 p 5]

PORT OF KOPAR--Last year Kopar had a record goods turnover: It loaded about 2.4 million tons of goods, or 19 percent more than in 1978. This year an increase of 27 percent over 1979 is expected. Also, over 50,000 containers were handled, or 45 percent more than in 1978. Total loading turnover by 1985 is planned at 3 billion tons, with a considerable increase in container turnover, enabling Kopar to continue to be one of the most important Yugoslav container-shipping ports, and especially [important] in the loading of sawn lumber, wood, and certain general cargo, such as southern fruit. [Excerpt] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 21 Feb 80 p 12]

PERSONAL INCOME RISE--According to the Social Accounting Service which monitors and compares personal incomes, in January these incomes in 12,957 organizations of associated work, work communities, and other users of social funds were above the November [1979] level which [level], according to the Resolution, was to be maintained up to March [1980]. About 31 percent of those employed (1,301,127) in organizations in which personal incomes were paid for January received more than in November. In other words, 27 percent of the 47,850 users of social funds in which the Social Accounting Service has data did not hold to the agreed-upon policy on personal incomes. The excess paid amounted to 557,800,000,000 dinars...ranging on the average from 4.8 percent in Serbia proper, to 9.2 percent in Bosnia-Hercegovina, compared to November 1979. The highest excesses were in organizations of associated work and work communities of the economy, but were also considerable in educational, scientific, cultural, informational, health, and social service organizations. [Excerpt] [Belgrade BORBA in Serbo-Croatian 8 Mar 80 p 4]

U.S. FIRM IN KOSOVO--Construction will soon begin of a very important production capacity at the "Farmakos" pharmaceutical and chemical products factory in Prizren. This will be a plant for producing soft gelatine capsules, the only factory of this kind in our country; it is based on joint investment by "Farmakos" and the American ICN firm in Los Angeles. An inorganic salt plant is also nearing completion, built through joint investment by the "Leka" enterprise in Ljubljana, the [above] "Farmakos" and "Trepca" in Kosovska Mitrovica. [Excerpts] [Belgrade PRIVREDNI PREGLED in Serbo-Croatian 28 Feb 80 p 11]

MONEY ISSUANCE--Of the 34.2 billion dinars to be printed this year, 21 billion dinars will be for granting credits for priority projects in the economy, 9.9 billion dinars will be earmarked to cover federal budget obligations, and 3.3 million dinars will be for redeeming commercial paper of organizations of associated work in the economy and commerce. [Text] [Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 18 Feb 80 p 9]

CSO: 2800 END

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EAST EUROPE REPORT: Political, Sociological and Military Affairs
EAST EUROPE REPORT: Scientific Affairs

WORLDWIDE SERIAL REPORTS

WORLDWIDE REPORT: Environmental Quality
WORLDWIDE REPORT: Epidemiology
WORLDWIDE REPORT: Law of the Sea
WORLDWIDE REPORT: Nuclear Development and Proliferation
WORLDWIDE REPORT: Telecommunications Policy, Research and Development

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